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# Health Care Financing Strategy Background Paper #1

## Options for the Minimum Benefit Package in Tanzania

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## ACRONYMS

| | |
|---|---|
| ADDO | Accredited Drug Dispensing Outlets (ADDO |
| CBOs | Community-Based Organizations |
| CEA | Cost Effectiveness Analysis |
| CHF | Community Health Fund |
| CHF/TIKA | Community Health Insurance Fund(s) |
| CHMT | Community Health Management Team |
| CPA | Complementary Package of Activities |
| CPI | Consumer Price Index |
| CUA | Cost Utility Analysis |
| DALY | Disability Adjusted Life Year |
| ESRF | Economic and Social Research Foundation |
| FBO | Faith-Based Organisation |
| GOT | Government of Tanzania |
| HFTWG | Health Financing Technical Working Group |
| HIV/AIDS | Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome |
| HLTF | High Level Task Force |
| HRH | Human Resources for Health |
| HSSP III | Health Sector Strategic Plan III |
| IFHS | International Financing for Health Systems |
| IMCI | Integrated Management of Childhood Illness(es) |
| ISC | Inter-ministerial Steering Committee |
| LGA | Local Government Authority(ies) |
| MBP | Minimum Benefit Package |
| MBP/EHP | Minimum Benefit Package/Essential Health Package |
| MOD | Ministry of Defence |
| MOF | Ministry of Finance |
| MPA | Minimum Package of Activities |
| NEHIP | National Essential Health Intervention Package |
| NGOs | Non-governmental Organizations |
| NHA | National Health Accounts |
| NHIF | National Health Insurance Fund |

| | |
|---|---|
| NPEHI | National Package of Essential Health Interventions |
| NPEHI | National Package of Essential Health Interventions |
| NSSF | National Social Security Fund |
| NSSF | National Social Security Fund SHIB |
| OC | Other Charges |
| OOP | Out-of-pocket (expenditures(s)) |
| OPM | Oxford Policy Management |
| OTC | Over-the-Counter |
| P4P | Pay -for -Performance |
| PE | Personnel Emoluments |
| PFM | Public Finance Management |
| PHCDP (MAMM) | Primary Health Care Development Programme |
| PHS | Public Health System |
| QALY | Quality Adjusted Life Years |
| SARA | Service Availability and Readiness Assessment |
| SHIB | Social Health Insurance Benefit |
| STD | Sexually Transmitted Disease(s) |
| SWOT | Strengths, Weaknesses, Opportunities and Threats |
| TB | Tuberculosis |
| TRA | Tanzanian Revenue Authority |
| TZS | Tanzanian Schilling(s) |
| UHC | Universal Health Coverage |
| USD | United States Dollar |
| WHO | World health Organisation |

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# EXECUTIVE SUMMARY

## Background

The *Tanzanian National Health Policy of 2003* as updated in 2007 sets out a policy vision which aims at improving the health and well-being of all Tanzanians with a focus on those most at risk, and to encourage the health system to be more responsive to the needs of the people. The Health Policy also emphasizes that health services should be "available and accessible to all the people in the country (urban and rural areas)". In this regard, Tanzania is committed to the principle of universal coverage of social health protection to reach the goals of the Health Policy. It is within this framework that this paper has been commissined by the Ministry of Health and Social Welfare (MoHSW) and the Inter-Ministerial Steering Committee (ISC) to define a minimum benefit package of health care services that can be guaranteed to all Tanzanians in an effort to move towards universal health care coverage.

## Definition of a minimum benefit package (MBP)

This paper has adopted WHO definition which states that *"An Essential (or 'Minimum') Health Package in a low-income country* consists of a limited list of public health and clinical services which will be provided at primary and/or secondary care level" (WHO 2008). An important characteristic of this definition is that a MBP is guaranteed basic health care services to all Tanzanians that aim at reducing the main burden of diseases which cause high mortality and morbidity in the country.

In Tanzania an essential package was introduced in 2000 under the name, the 'National Package of Essential Health Interventions' (NPEHI). This package was up-dated in approximately May 2013 under the name 'National Essential Health Care Interventions Package - Tanzania' (NEHCIP-Tz). As discussed in the text, the main objective of the essential package is to "ensure universal access to quality health care services consisting of promotive, preventive, curative and rehabilitative services to all people in Tanzania" (NEHCIP-Tz, 2013). This essential package provided an important input into this paper for defining the minimum benefit package(s) that could be scaled up by the government progressively over time towards achievement of universal health care coverage.

## Selection criteria of the MBP interventions

The paper applied established public health planning methods for identifying the MBP interventions and costing the options. In particular, the interventions potential contribution to reducing the burden of morbidity and mortality in Tanzania (considering not only their epidemiological burden, but also the social and economic burden as well); availability of interventions that have been demonstrated to be safe and effective as supported by cost-effectiveness analysis; affordability and medium and long-term sustainability in financing as well as equity considerations.

## The MBP interventions

The MBP is expected to provide a minimum set of health care outpatient and inpatient services as proposed on Box 1. Since no country can guarantee all health care services to its citizens, a non-exhaustive list of exclusions has also been proposed as shown on Box 2. The lists will need to be vetted by stakeholders to ensure the minimum package is the one desired for scaling up towards the country's universal health coverage.

**Box 1: Minimum health care package (MBP) for Tanzania**

1. Outpatient services—general and specialist consultations and reviews, general and specialist diagnostic testing including laboratory investigation, X-rays, ultrasound scanning, medicines on the essential drug list, surgical operations such as hernia repair, and physiotherapy.
2. Inpatient services—general and specialist services in patient care, diagnostic tests, medication-prescribed medicines on the essential drug list, blood and blood products, surgical operations, inpatient physiotherapy, accommodation in the general ward, and feeding (where available).
3. Maternity, new born and child health— Adolescent sexual & reproductive health including PMTCT, IMCI, EPI, Nutrition.
4. Communicable diseases – Malaria, TB, STI, Lymphatic filariasis, Schistosomiasis and soil-transmitted helminthes, Leprosy.
5. Non communicable diseases – Diabetes, Injuries and disabilities, Eye care, oral health.
6. Emergencies—health situations which require urgent attention such as road traffic accidents, medical, surgical, pediatric, and obstetric and gynecological emergencies.

**Box 2: List of exclusions under the Minimum Benefit Package**:

1. Services/treatment for self-inflicted diseases/injuries like alcohol, drug and tobacco abuse, attempted suicide and criminal abortion
2. Appliance and prostheses including optical aids, heart aids, orthopedic aids, and dentures
3. Cosmetics, cosmetic surgeries and aesthetic treatment
4. Assisted reproduction (for example, artificial insemination) and gynecological hormone replacement therapy
5. Echocardiography
6. Photography
7. Angiography
8. Dialysis for chronic renal (kidney) failure
9. Organ transplants
10. Expensive specialized investigative procedures like MRI and DNA Typing
11. All drugs that are not listed on the Essential Drug list
12. Heart and brain surgery other than those resulting from accidents
13. Cancer treatment other than breast and cervical
14. Mortuary services
15. Diagnosis and treatment abroad
16. Medical examinations for purposes other than treatment in accredited health facilities (for example, visa application, education, institutional, driving license)
17. Private ward (health facility accommodation);
18. Natural disasters, political conflicts and injuries arising from active participation in riots, demonstrations, unrest and civil strife.

## Cost of the MBP

Table E-1 provides a summary of the MBP cost.

*Table E-1: Summary MBP cost*

| Interventions | Cost per capita | | MBP total cost per year | | MBP cost/total health budget (2013/14) |
|---|---|---|---|---|---|
| | TZS | USD | TZS (billion) | USD (million) | |
| **Option 1** | 55,146 | 34 | 620-1,147 | 388-717 | 41-77% |
| **Option 2** | 65,622 | 41 | 744 - 1,376 | 465-860 | 50-92% |
| **Option 3** | 116,016 | 73 | 1,033 - 1,911 | 646-1,194 | 69-128% |

The MBP is likely to cost a minimum of TZS 620 billion per annum or USD 388 million, which translates to about TZS 55,146 (USD 34) per capita. However, due to uncertainty in the number of population that is likely to seek health care under the MBP, the cost may be as high as 1,911 billion or USD 1,194 billion; which translates into about TZS 116,016 (USD73) per capita. These MBP estimated costs are about 41-128% of the total health budget for 2013/14.

Lessons from the region and regional comparisons of essential packages (Annex 2 in the text) reveal similar priority setting to that of Tanzania and the cost structure is within those ranges. Also WHO estimates show that a basic minimum package of health care interventions in a low income country could be delivered at US$ 34 per capita. As such, the estimated MBP costs are doable because the Government is resolute about implementing a minimum health care package for its citizens that will be scaled up towards universal health coverage.

### Financing the MBP

The MBP is likely to be financed through a variety of financing approaches. Foremost, the health budget is low and needs substantial increases to sustainably fund the MBP. As the discussion in the text shows, total health budget is 9 percent of the total government spending and needs to be increased to 15 percent as committed under the Abuja agreement. Second, it is recommended that 2.5 percent of the total VAT revenue be channelled to Community Health Fund (CHF) account to provide a stable and reliable source of financing the health services for the poor under the MBP program. Third, the Government could establish a 'Compulsory Health Insurance Levy' to raise revenue that will be used to defray the cost of health care to the poor. A small levy that has very little effect on company profitability could be charged to a few large companies such as mobile phone and mining companies as well as foreign exchange transaction tax that would be collected by TRA and deposited into the CHF account. Forth, the government is urged to leverage private business financing of the health sector, including fostering public-private partnerships. Fifth, health insurance coverage is low, about 7 million or 15.6 percent of the country's population. Efforts should be made to increase public and private health insurance cover for employed and non-employed persons.

User fees tend to be regressive and constrain health care access by the poor and vulnerable members of the society. As such user fees should be kept to a minimum under the MBP. This paper discusses various co-payment options, but recommends a flat rate of differentiated co-payments under which the poor and vulnerable (as identified by the 'Inclusion of the poor' options paper) pay very low affordable co-payments. Part of the reason for ensuring co-payment for all MBP beneficiaries is to inculcate the feeling of ownership of health provision in the country as well as allow the beneficiaries a dignified chance to demand better quality health care services.

The reliance on pre-payment schemes should be encouraged and the suggestions put forward by the 'Insurance' market and CHF options papers with regards to the insurance and institutional and management arrangement should be explored. As far as possible implementation of the MBP should follow government structures, processes and procedures and services should be provided through the five level tiered referral pyramid of the Tanzanian Health System. The delivery of the MBP should be expected to benefit from the MoHSW's eHealth strategy – especially in fostering efficient service delivery, financial management and accountability.

***Monitoring and evaluation (M&E)***

A robust M&E system is required to provide timely progress information in the implementation of the MBP. In this regard, a limited number of indicators should be developed to provide comprehensive information that will enable policy makers to make decisions focusing on key health issues. Some of the M&E indicator parameters that could be included are: financial protection, availability of health services, affordability – especially for the poor and vulnerable groups, quality of services being offered, and issues related to poverty such as progress being made to achieve the MDG goals or moving towards attaining universal health care coverage.

***Timeframe for the process leading to MBP implementation***

It is recommended that 2014 be devoted to the development of the administrative, institutional and MBP processes and systems for effective implementation. The MoHSW will take lead for completion and approval of the MBP package by December 2013. This will be followed by discussions with various government and non-government stakeholders on MBP financing mechanisms that will be concluded by February 2014. A National Health Insurance (NHI) team will be constituted by the MoHSW to work out modalities for implementation of the MBP through an insurance system and suggest necessary legislative steps, including review of existing insurance regulatory authorities. It is expected that any new legislation and/or amendments will be tabled to the September 2014 parliamentary seating. Other MBP implementation modalities such as eHealth will be worked out so that implementation of the MBP will commence in earnest in January 2015.

## Conclusion

This paper has defined a minimum benefit package as that basic health care bundle of services that can be guaranteed by the government for all Tanzanians. The contents of the MBP include essential outpatient and inpatient health care services derived from observed burden of diseases in Tanzania. The cost of this minimum package is estimated to cost a low of TZS 55,146 (or US$ 34) or a high of TZS 116,016 (USD 73) per capita, at current prices. Depending on the number of people who will need the MBP service interventions, who may range between 11.25 -18 million, the total cost of financing the MBP per year ranges between TZS 620–1,911billion or US$ 388–1,194 million per year or 41-128 percent of the 2013/14 total health budget. Financing of this minimum package is expected to come largely from the Government health budget, leveraging private business financing and PPP arrangements, and reformed insurance mechanisms that will facilitate pre-payment mechanisms and ensure equity and protection of the poor and vulnerable groups in the society. Implementation is expected to follow the government and health system institutional structures, processes and procedures whose foundations will be laid down in 2014.

# 1.0 INTRODUCTION

The health sector in Tanzania is currently entering the final phases of Health Sector Strategic Plan III (July 2009 – June 2015). Within this HSSP III, the development of a health care financing strategy was foreseen but has not yet been realized (p32.). Ideally, a financing strategy is an integral part of a strategic plan. The elapsed time would indicate some challenges in realizing that health care financing strategy.

Against this background, oversight to complete the health care financing strategy was given to an Inter-ministerial Steering Committee (ISC) (August 2012). To achieve this aim, the ISC has identified a number of key areas for reform and commissioned nine studies to inform the Strategy. This study: **Minimum Benefit Package(s): options to sustainably structure access to benefits;** is one of these nine studies.

The studies to be prepared do not include any option to consider provider and practitioner changes (supply-side related innovations or reforms). The study team was also asked to limit this option paper on the basis of using the existing formal public medical service delivery system and planning approaches as the starting point for the formulation of options and discussion.

## 1.2 Objectives and Scope

The specific objectives for the study are:

1. Provide inputs for **the process** of defining Minimum Benefit Package(s)
2. Provide insights into how **the costs** between potential benefit packages of different size (i.e. amount and type of services included) differ with the aim of sensitizing on the cost effects of decisions on the size of the benefit package rather than attempting to define packages or give concrete inputs into planning.

To achieve these objectives, the Terms of Reference for the study team includes a list of approximately 15 detailed tasks to be completed by the team. These are summarized in Annex 1.

## 1.3 Definition of the Minimum Benefit Package (MBP)

The 'Minimum' Benefit Package is one of a number of formulations of what are more commonly and traditionally known as an 'Essential (Healthcare) Benefit Package' (WHO 2008). In Tanzania this package was first approved at a conference in Mogogoro in 1999 under the name, the 'National Package of Essential Health Interventions' (NPEHI). An updated NPEHI was formulated in 2013 under the name 'National Essential Health Care Interventions Package -Tanzania' (NEHCIP-TZ).

*The WHO proposes that "An Essential (or 'Minimum') Health Package in a low-income country* consists of a limited list of public health and clinical services which will be provided at primary and/or secondary care level" (WHO 2008). This is the definition used in this study.

No country in the world, including Tanzania, can provide health services to meet all the possible needs of the population. For this reason, countries have to select which services to provide, and many have taken the approach of defining a minimum package of services although in higher income countries it is more normal to establish priority setting criteria and procedures to define what is excluded (negative lists), rather than build up lists of what is to be included (positive lists).

The following are key aspects of the MBP:

- The MBP is intended to be a guaranteed minimum. MBP in a low-income country consists of a limited list of public health and clinical interventions which will be provided at primary and/or secondary level care. In contrast, in richer countries packages are often described according to what they exclude. There are also 'partial packages' for particular disease or demographic groups.
- The MBP aims at concentrating scarce resources on interventions which provide the best 'value for money'. Because the MBP generally identifies cost-effective interventions, it increases value for money – for a given level of health spending, the impact on health status should improve. This, along with cost containment, is the most commonly cited rationale for MBP, that is its effectiveness and relative cost of the limited set of interventions.
- The MBP can enhance equity. MBP is generally regarded as equitable, because it describes a minimum service which should be available to every person with the same need, regardless of their age, gender or location. However, if an MBP is to be universal, or a safety net for the poorest, there must be additional deliberate efforts to improve access. Private as well as public providers may need to be involved.
- The MBP is linked to Poverty reduction. Because ill-health and paying for health care are major causes of poverty, MBP can be linked to poverty reduction.
- The MBP enhances political empowerment and accountability. Because MBP generally provides a clear description of what services will be available for all, it is a tool for holding government, providers and insurers accountable. Obviously there is a risk in using this argument, as limiting access to specific services tends to be politically unpopular.
- It is important to understand the context in which a particular MBP is being discussed. Some packages are not realistic (aspirational) - and describe what an MBP should eventually look like in the future. Others are seen as a short term planning tool, and linked more directly to affordability.
- Implementing an MBP is not just a technical exercise. Political and institutional processes need to be engaged, because successful implementation involves dialogue on purpose and design; decisions on financing and delivery arrangements, and

adaptation over time. Without adequate national ownership, the MBP is unlikely to be implemented successfully.

- The MBP can be the basis for government to plan investments in health infrastructure such as buildings and equipment, training of health personnel, purchasing of drugs and other medical supplies. Also the MBP can help the government to estimate the need for external assistance and to use donor resources well by channelling more funds to interventions with high impact on health outcomes.
- The MBP is not a solution for weak management. Implementation has implications for budget allocations, essential medicines lists; the distribution and training of health workers and information systems.
- The MBP includes different interventions in different countries - reflecting variation in economic, epidemiological and social conditions. Annex 2 provides experience with MBP in Eastern and Southern Africa.

In summary, MBP is often expected to achieve multiple goals: improved efficiency; equity; political empowerment, accountability, and altogether more effective health care.

## 1.4 Approach and Methods

The approach in the formulation of options for the Minimum Benefit Package is based on existing and traditional public health planning procedures and approaches to priority setting. Accordingly, the following steps are taken:

Feasibility:

1. Establish epidemiological priorities based on the burden of illness considering also social and economic burdens;
2. Specify interventions that have been demonstrated to be safe and effective both in terms of individual procedures and groups of procedures (by for example, practitioner level or category);
3. Provide justifications for the public funding (guarantee implied) for procedures or groups of procedures specified;
4. List and rank procedures in terms of their cost-effectiveness, other priority criteria, and establish (public) affordability;
5. Analyse the potential medium and longer-term sustainability of the interventions specified.

Implementation:

1. What are the various interventions expected to cost?
2. How effective are the interventions expected to be in impacting the burden of disease?
3. How can progress be monitored (which indictors can be used)?

## 2.0 MINIMUM BENEFIT PACKAGE (MBP)

This section discusses the options for the MBP. The process of developing the MBP interventions took into account several criteria (Box 3), the National Essential Health Care Interventions Package - Tanzania (NEHCIP-TZ), the country's burden of disease (Annex 4) and cost effectiveness of the interventions.

### 2.1 Criteria for selection of MBP interventions

**Box 3: Criteria for specifying the content of the MBP**

Feasibility

- Their potential contribution to reducing the burden of morbidity and mortality in Tanzania (considering not only their epidemiological burden, but also the social and economic burden as well,
- The availability of interventions that have been demonstrated to be safe and effective,
- Is the package based on cost-effectiveness politically feasible? Are there contentious inclusions or exclusions?
- Affordability. Can the MBP be afforded, given Tanzania's current resources and constraints, and
- The potential for sustaining the interventions in the medium - to long-term.

Cost-effectiveness

- What do various interventions cost?
- How effective are these interventions – what is their impact on the burden of disease?

### 2.2 NEHCIP-TZ

The 2013 NEHCIP-Tz is an update of the 2000 National Package Essential Health Interventions (NPEHI). The 2000 package of essential health interventions was defined at a meeting in Morogoro in January 1999 through consensus building by involving as many partners as possible. To design this package, the burden of diseases was determined using mortality rate data from MTUHA (HMIS Abstract), the AMMP demographic study and the study by Mmuni et al. (1994). Other sources of data were TEHIP, EDP and DHS studies. From the above sources of data, the following disease conditions were found to cause the highest mortality and morbidity among Tanzanians: HIV/AIDS/STDs, malaria, diarrheal diseases, injuries/Trauma/Emergencies, ARI, TB, prenatal conditions, maternal deficiencies, nutritional deficiencies, cardiovascular diseases /Stroke/Diabetes, neoplasm and immunisable diseases. In the 2013 update, these burdens of diseases were also observed as the main causes of mortality and morbidity in Tanzania.

The following components comprise the national package of essential health care – NEHCIP-Tz:

(i) Reproduction, maternal, new-born and child health (RMNCH): Adolescent sexual and reproductive health, sexual and reproductive health and rights, information, education and communication, antenatal care, care during child birth, new-born care, postpartum care, post-abortion care, family planning, HIV/AIDS and STD diagnosis and management, reproductive health of the elderly, prevention and management of infertility, prevention and management of reproductive cancer, prevention and management of childhood illness, prevention and management of immunisable diseases, gender-based violence (GBV)/VAC, and nutritional care.

(ii) Prevention, management and control of communicable diseases: HIV/AIDS and STI, Malaria, TB and TB/HIV, leprosy, epidemics (cholera, meningitis, plague, yellow fever, measles, polio, others).

(iii) Prevention, management and control of non-communicable diseases (NCD): Acute and chronic respiratory diseases, cardiovascular diseases, diabetes, neoplasm/cancers, injuries/trauma including rehabilitative support and counselling for self help, mental health, substance abuse, anaemia and nutritional deficiencies and congenital diseases and anomalies.

(iv) Treatment and care of other common diseases of local priority within the district council: oral health conditions, eye disorders, skin diseases, etc

(v) Neglected tropical diseases: Onchocerciasis (river blindness), lymphatic filariasis (elephantiasis), trachoma, plague, schstosomiasis (bilharzias), human African trypanosomiasis (sleeping sickness), soil transmitted helminthiasis (internal worms) and leprosy.

## 2.3 The burden of disease

The burden of disease information is sourced from the MoHSW recent 'Annual Health Performance Profile 2011/12, May 2013'. The MBP key related data on the disease burden and Tanzanians seeking health care is summarized in Annex 4. Also information was sourced from the 2000 NPEHI as updated in 2013 under the title NEHCIP-Tz. The health performance profile and the essential health care packages provides a summary of the most prevalent diseases causing high morbidity and mortality in Tanzania, namely: HIV/AIDS/STDs, Malaria, Diarrheal Diseases, Injuries /Trauma/Emergencies, ARI, TB, Prenatal conditions, Maternal deficiencies, Nutritional deficiencies, Cardiovascular diseases /Stroke /Diabetes; Neoplasm and Communicable diseases, which are also the main causes of death in Sub-Saharan Africa (Table 1).

**Table 1: Major causes of death in Sub-Saharan Africa**

| Major cause of death | Deaths | | DALYs | |
|---|---|---|---|---|
| | 000s | % | 000s | % |
| HIV/AIDS | 2,058 | 18.99 | 56,820 | 16.48 |
| Malaria | 1,093 | 10.09 | 35,447 | 10.28 |
| Lower respiratory diseases | 1,080 | 9.97 | 30,455 | 8.28 |
| Childhood cluster | 745 | 6.87 | 23,198 | 6.73 |
| Diarrheal disease | 712 | 6.60 | 22,046 | 6.39 |
| Perinatal condition | 573 | 5.29 | 20,047 | 5.81 |
| Cancers | 409 | 3.77 | 6,281 | 4.39 |
| Maternal conditions | 239 | 2.19 | 9,743 | 2.83 |
| Tuberculosis | 317 | 2.93 | 8,084 | 2.34 |
| Road accidents | 121 | 1.12 | 6,374 | 1.85 |
| Respiratory diseases | 355 | 3.28 | 6,150 | 1.78 |
| Cerebrovascular disease | 343 | 317 | 5,169 | 1.49 |
| Protein energy malnutrition | | | 5,220 | 1.51 |
| Ischemic heart disease | | | 4,579 | 1.33 |
| STDs | | | 3,842 | 1.11 |

***Source: Philip Musgrove (2007): 'Countries Disease Control Priorities in East Africa, Dar es Salaam, 21-23 August 2007, the Disease Control Priorities Project (DCP2).***

This burden of disease has been taken into account in the suggested options for the contents of the MBP. The 2000 NPEHI burden of disease was confirmed by a workshop held in Dar es Salaam in 2007 which used Disability adjusted life years (DALYs). DALY is a measure of overall disease burden expressed as the number of years lost due to ill-health disability or early death. One DALY can be thought of as one lost year of "healthy" life. The sum of these DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability. DALYs are also shown on Table 1.

The above (Table 1) causes of death have also been observed in a recent MoHSW (2013)[1] which observed, among other things, that the leading causes of deaths in children below five years in 2011 were malaria, pneumonia and anaemia which collectively accounted for 64.2% of all deaths, followed by diarrhoea disease, prenatal conditions and protein energy malnutrition (PEM) which accounted for 14%, while the remaining four diseases accounted for 7.4%. Similarly, for patients aged 5years and above, the leading causes of deaths in 2011 were malaria, HIV/AIDS and anaemia which collectively accounted for 40.2% of all deaths, followed by pneumonia, TB and hypertension which accounted for 19%, while the remaining four diseases (diarrhoea, cardiac failure, neoplasms and other cardiovascular diseases) accounted for 12.4%. Thus, the disease burden observed in 2007 has changed little by 2011.

Analysis on burden of disease conducted by WHO using DALYs and cost effectiveness analysis in some developing countries confirms the Dar es Salaam findings (Figure 6). Indeed, as Figure 6 shows, public spending in reproductive and child health is the most cost

[1] MoHSW (2013) 'Annual Health Sector Performance Profile 2011/12, May 2013

effective way of reducing child and under-five mortality rates as well as maternal mortality rates and those associated with malaria infestation. Although interventions tailored towards the control of HIV/AIDS are more costly, public spending on this deadly pandemic is essential. Hence, public spending in the proposed contents/ interventions of the MBP is likely to be cost-effective in reducing morbidity and mortality rates in Tanzania.

**Table 2: Main cause of disease burden in children and adults in demographically developing countries and the cost-effectiveness of the Interventions available for their control2**

| Disease and injuries | No. of DALYs lost[8] (million) | | Main intervention | Cost-effectiveness ($ per DALY) | Cost-effectiveness (Tshs per DALY) |
|---|---|---|---|---|---|
| Respiratory infections Perinatal morbidity and | 98 | (14.8)b | Integrated management of the sick child (IMSC) | 30-100 | 48,000-160,000 |
| mortality | 96 | (14.6) | (a) Prenatal and delivery care | 30-100 | 48,000-160,000 |
| | | | (b) Family planning | 20-150 | 32,000-240,000 |
| Diarrhoeal disease | 92 | (14.0) | IMSC | 30-100 | 48,000-160,000 |
| Childhood cluster | 65 | (10.0) | Expanded programme of | 12-30 | 19,200-48,000 |
| Congenital | 35 | (5.4) | Surgical operations | High | |
| Malaria | 31 | (4.7) | IMSC | 30-100 | 48,000-160,000 |
| Intestinal helminths | 17 | (2.5) | School health programme | 20-34 | 32,000-54,400 |
| Protein-energy malnutrition | 12 | (1.8) | IMSC | 30-100 | 48,000-160,000 |
| Vitamin-A deficiency | 12 | (1.8) | EPI-plusc | 12-30 | 19,200-48,000 |
| Iodine deficiency | 9 | (1.4) | Iodine supplementation | 19-37 | 30,400-59,200 |
| Subtotal | 467 | (71.0) | | | |
| Total DALYs lost | 660 | (100) | | | |
| Sexually transmitted diseases | 49.2 | (8.9) | Condom subsidy plus IECd | 3-18 | 4800-28,800 |
| Tuberculosis | 36.6 | (6.7) | Short-course chemotherapy | 3-7 | 4800-11,200 |
| Cerebrovascular disease | 31.7 | (5.8) | Case management | High | |
| Maternal morbidity and mortality | 28.1 | (5.1) | Prenatal and delivery care | 30-110 | 48000-176,000 |
| Ischaemic heart disease | 24.9 | (4.5) | Tobacco control programme | 35-55 | 56,000-88,000 |
| Chronic obstructive | | | | | |
| pulmonary disease | 23.4 | (4.3) | Tobacco control programme | 35-55 | 56000-88,000 |
| Motor vehicle accidents | 18.4 | (3.3) | Alcohol control programme | 35-55 | 56000-88,000 |
| Depressive disorders | 15.7 | (2.9) | Case management | 500-800 | 800,000-1,280,000 |
| Peri- endo- and myocarditis and cardiomyopathy | 12.4 | (2.2) | Case management | High (unknown) | |
| Homicide and violence | 12.2 | (2.2) | Alcohol control programme | 35-55 | 56000-88,000 |
| Subtotal | 252.6 | (48.6) | | | |
| Total DALYs lost | 550.0 | (100) | | | |

Notes:

a. DALYs lost (for specific diseases and the total) are taken from the 1993 World Development Report (1). The total for children and adults include DALYs lost in 1990 due to all diseases and injuries.
b. Figures in parentheses are percentages.
c. EPI-plus includes the six vaccines of the Expanded Programme on Immunization (EPI), plus the vaccine against hepatitis B and vitamin A supplementation.
d. IEC: activities dedicated to information, education and communication.

Source: J.-L. Bobadnla, J.L, P. Cowley, P. Musqrove, and H. Saxeniarr (1994): 'Design, content and financing of an essential national package of health services': WHO Bulletin Vol.72, 1994

It is the case that much of these data are both from international sources and averages and in some case somewhat out of date. Possible reasons for this are limitations in availability of timely routine health related data of this kind in Tanzania and possible solutions in responding to this data shortage are beyond the scope of the current study.

## 2.4 The MBP interventions

The proposed MBP interventions and list of exclusions is shown in Box 1 and 2 in the Executive Summary. The MBP includes a minimum set of outpatient and inpatient services, that includes the most essential health care services at the primary and secondary level. Most notably: maternal, new born and child health; communicable diseases, especially malaria; non communicable diseases such as eye care; and emergencies such as those emanating from road accidents.

The list of exclusions includes interventions such as services /treatment for self-inflicted diseases/injuries; cosmetics, cosmetic surgeries and aesthetictre; as well as more expensive health care conditions such as echocardiography, photography, and angiography, dialysis for chronic renal (kidney) failure and organ transplants. Most of the services in these exclusions can be obtained by the beneficiary through other health insurance provisions.

## 2.5 Cost of the MBP using burden of disease

The cost of MBP is analyzed in this section using the main disease burden in Tanzania and in Section 2.6 using health facilities cost centres.

The cost of delivering the MBP has been approximated using the country's disease burden (Annex 4) and unit costs from the costing study (GIZ 2013)[2]. The methodology is discussed further below. Table 2 shows the cost of the MBP under Option 1 and 2.

[2] Adjustments were made to the unit cost per beneficiary from the OPM costing study to factor in new costs of ART, PMTCT and new workforce norms.

### Table 3: Cost of MBP under three disease burden options

**Option 1: MBP cost of outpatient and inpatient care using 12 main conditions**

| Interventions | Cost per beneficiary | Cost per capita |
|---|---|---|
| | Tshs | |
| Antenatal care | 154,540 | 2,318 |
| Safe delivery | 91,980 | 1,104 |
| PMCT | 335,030 | 3,720 |
| Postnatal care | 59,364 | 1,781 |
| Routine immunization | 51,496 | 1,545 |
| Growth monitoring | 31,875 | 956 |
| Acute respiratory infection | 48,600 | 972 |
| Diarrhea | 78,692 | 1,181 |
| HIV/AIDS/STI | 1,532,390 | 30,648 |
| Tuberculosis (TB) | 391,690 | 9,792 |
| Malaria | 54,748 | 876 |
| Injuries/trauma | 68,980 | 1,586 |
| Total | 2,899,385 | 56,480 |

**Option 2: MBP cost of outpatient and inpatient care using 16 conditions**

| Interventions | Cost per beneficiary | Cost per capita |
|---|---|---|
| | Tshs | |
| Antenatal care | 154,540 | 2,318 |
| Safe delivery | 91,980 | 1,104 |
| PMCT | 335,030 | 3,720 |
| Postnatal care | 59,364 | 1,781 |
| Routine immunization | 51,496 | 1,545 |
| Growth monitoring | 31,875 | 956 |
| Acute respiratory infection | 48,600 | 972 |
| Diarrhea | 78,692 | 1,181 |
| HIV/AIDS/STI | 1,532,390 | 30,648 |
| Tuberculosis (TB) | 391,690 | 9,792 |
| Malaria | 54,748 | 876 |
| Injuries/trauma | 68,980 | 1,586 |
| Anaemia | 97,450 | 2,533 |
| Eye, ear and skin infections | 81,780 | 2,578 |
| Nutritional deficiencies | 74,728 | 1,570 |
| Health education | 150,000 | 4,050 |
| Total | 3,303,342 | 67,210 |

Notes and Sources:

- The costs per beneficiary were sourced from the OPM costing (OPM 2013)). Population was assumed to be 45 million people (NBS 2012) and the exchange rate used was TZS 1,600 per $US1.
- Additional interventions included under option 2 and 3 where derived from the OPM costing study and some are included in the 2013 NEHCIP-Tz
- Adjustments were made to the unit cost per beneficiary from the OPM costing study to factor in new costs of ART, PMTCT and new workforce norms.

In brief, Option 1 is the ***basic guaranteed minimum MBP*** that the government can consider to scale up to universal health care coverage. This option is estimated to cost TZS 56,480 per capita or about US$ 35 per capita – providing a MBP total cost range of TZS 635.4 billion to TZS 1 trillion per year; equivalent to US$ 397-635 million per year.

Option 2 includes all the interventions under Option 1 plus extra less cost effective and more expensive interventions which have been identified under the National essential health care package (NEHCIP-Tz). Option 2 is estimated to cost TZS 67,210 or US$ 42 per capita. This provides an estimated total cost of the MBP under this option of TZS 756 billion to TZS 1.2 trillion per year or US$ 472.5 - 756 million per year.

Option 3 includes all interventions under Option 1 and 2 and four more higher level interventions that have also been identified in the NEHCIP-Tz. Option 3 is estimated to cost TZS 1.3 trillion to TZS 2.0 trillion or US$ 802 million to US$ 1.28 billion.

Grouping these interventions in further sub-blocks is somewhat more difficult as analysis is limited to the existing delivery and financing systems. This raises a number of questions that will have to be answered in combination with other papers in the series but most importantly:

- How and by whom could such bundles of services be 'contracted' (or simply 'monitored' (outside routine accounting and reporting) and what will be the relationship

**Table 4: MBP options intervention packages**

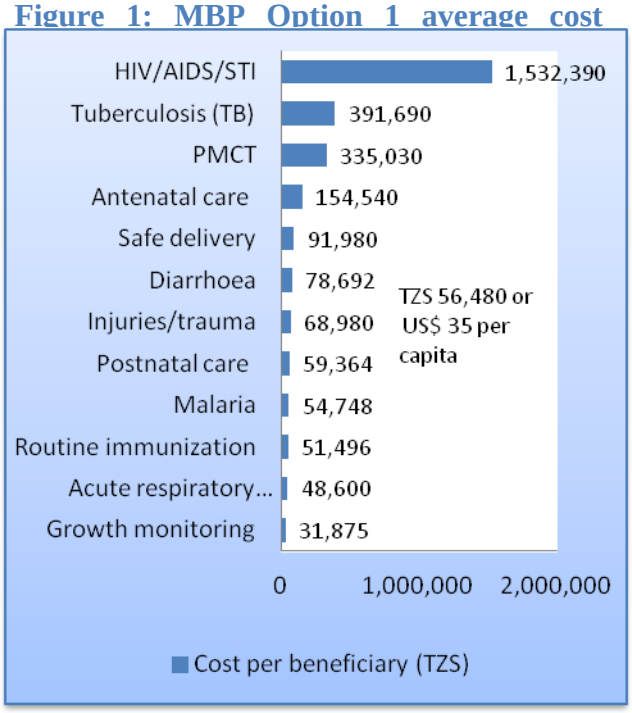
**Option 3: MBP cost of outpatient and inpatient care using 20 conditions**

| Interventions | Cost per beneficiary | Cost per capita |
|---|---|---|
| | Tshs | |
| Antenatal care | 154,540 | 2,318 |
| Safe delivery | 91,980 | 1,104 |
| PMCT | 335,030 | 3,720 |
| Postnatal care | 59,364 | 1,781 |
| Routine immunization | 51,496 | 1,545 |
| Growth monitoring | 31,875 | 956 |
| Acute respiratory infection | 48,600 | 972 |
| Diarrhea | 78,692 | 1,181 |
| HIV/AIDS/STI | 1,532,390 | 30,648 |
| Tuberculosis (TB) | 391,690 | 9,792 |
| Malaria | 54,748 | 876 |
| Injuries/trauma | 68,980 | 1,586 |
| Anaemia | 97,450 | 2,533 |
| Eye, ear and skin infections | 81,780 | 2,578 |
| Nutritional deficiencies | 74,728 | 1,570 |
| Health education | 150,000 | 4,050 |
| Cardiovascular disease | 552,256 | 9,940 |
| Diabetes | 708,762 | 8,151 |
| Neoplasm/cancer diseases | 1,112,866 | 13,577 |
| Mental health | 1,150,958 | 15,192 |
| **Total** | 6,828,185 | 114,070 |

between the historical public sector production cost and possible future evolutions in contract prices and other performance parameters?

- Services in the MBP will not cover all possible services as evidenced by reading the 2013 NEHCIP-Tz interventions (nor therefore total costs structures) that might be provided by various levels of service providers. What levels of freedom will publicly owned providers enjoy accepting or rejecting offered contracts and/or prioritizing other potentially non-MBP services?

**Figure 1: MBP Option 1 average cost**




**An overview of the costs of the MBP Options**

Analysis indicates that Option 1 is the least cost minimum benefit package that can be guaranteed by the Government to its citizens. With regards to the contents of Option 1, as Figure 1 illustrates, interventions in reproductive and child health are the most cost effective in reducing the burden of disease and should be prioritized in any efforts directed towards achieving universal health coverage (UHC). Interventions on child growth monitoring, acute respiratory infection, including pneumonia, routine immunization and malaria control should also be prioritized. Concerted efforts should also be made to reduce road accidents – especially those caused by reckless driving and poorly trained motor-bike drivers. Prevention of mother to child HIV transmission (PMTCT) and addressing TB conditions is also cost effective. As discussed earlier, the control of HIV/AIDS and associated sexually transmitted infections (STI) is critical for reducing the spread of this epidemic, although several times more costly than other interventions as shown in Figures 2.

Under Option 1, the cost per capita per year is TZS 56,480 or US$ 35 per capita. The data for the interventions were sourced from a recently completed costing undertaken by Chris James, Mark Bura, Tim Ensor with inputs from Sourovi De and Sarah Fox under the Oxford Policy Management (OPM) firm in March 2013. As stated above, the units costs of the costing study were adjusted by a few percentage points to take into account recently completed costing of ART and PMTCT as well as new costed staffing norms.

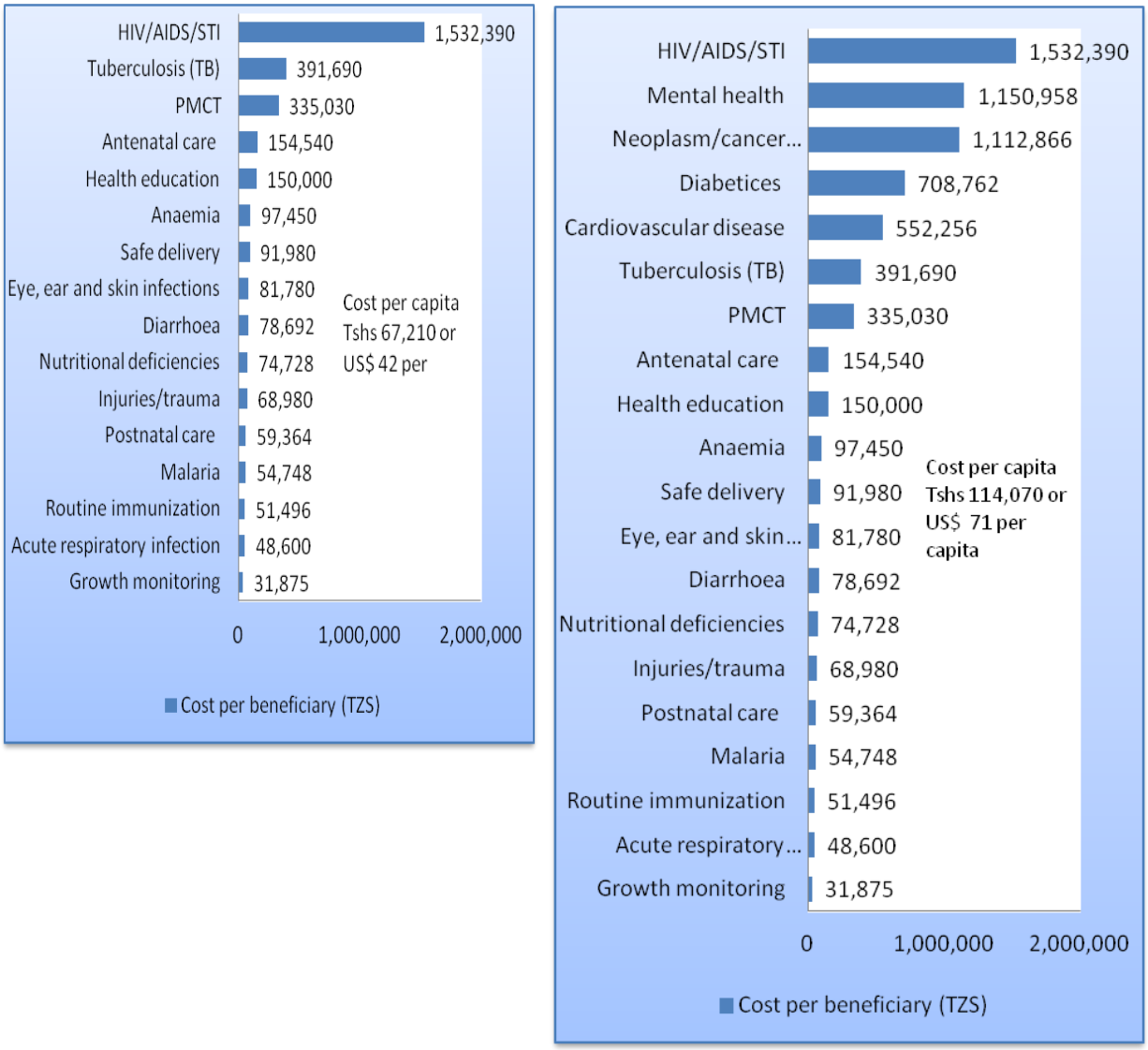
Option 2 of the MBP is shown on Figure 2 below. This option 2 includes all the interventions in Option 1 and an additional 4 interventions; namely: (i) Anaemia (anemia) which is common in some people in Tanzania due to deficiency in the number or quality of red blood cells, especially lack of iron or due to malaria or malnutrition and worm infestation; (ii) Eye,

ear and skin infections, which are increasingly becoming impediments to good health in the country; (iii) Nutritional deficiencies, which are common, especially among children under five and lactating mothers and lack of micronutrients; and (iv) Health education, which we consider important in outreach programs from the health facility to the community as well as in educational institutions, particularly primary and secondary education to instil proper health habits.

As discussed above, the estimated cost of Option 2 is TZS 67,210 or US$ 42 per capita. As discussed under Option 1 above, the unit costs of the interventions were sourced from the costing study.

Option 3 of the MBP includes all the interventions under Option 1 and 2 as well as four extra interventions observed in the 2013 NEHCIP-Tz, namely: (i) Cardiovascular disease, which is becoming increasingly common in Tanzania, (ii) Diabetes, which is a group of metabolic diseases in which a person has high blood sugar, either because the pancreas does not produce enough insulin or other malfunctioning of the body. Diabetes is becoming very common among both young and mature Tanzanians. (iii) Neoplasm/cancer diseases – diseases that are becoming a threat to life, partly due to changed eating habits and other causes as attested by many patients attending medical treatment at Ocean Road hospital and other health centres in the country. (iv) Mental health, a condition that is becoming common in Tanzania as attested by many patients attending Mirembe hospital and Muhimbili referral national hospital. The unit cost of treating these four conditions is astoundingly much higher than those more cost effective interventions under Option 1. As a result, the cost per beneficiary increases substantially to TZS 114,070 per capita or US$ 71 per capita (Figure 2). As in all options, the unit costs of the interventions were sourced from the OPM costing study.

**Figure 2: MBP Option 2 (left) and Option 3 (right) average cost (TZS)**




**Total costs of the options**

Based on the analysis of disease burden and health seeking behaviour (as provided by the MOHSW HMIS data (Annex 4)), the population that is likely to seek health care in any year would range between: 11,250,000 - 18,000,000. Assuming a population of 45 million people (NBS, 2012), an exchange rate of TZS 1,600 per US$ 1, and the total health sector budget of TZS 1.496 trillion (2013/14 budget); then the following MBP cost can be derived under three scenarios as follows:

**Scenario 1: Only 11,250,000 or 25% of the population seeks health care under the MBP interventions during the year**

**Table 5: Only 25% of the population seek health care under the MBP interventions**

| Interventions | MBP cost per capita | 25% of population | MBP cost if 25% seek health care | Total Health Sector budget (TZS, million; 2013/14) | MBP cost as % of total health budget |
|---|---|---|---|---|---|
| **Interventions** | 1 | 2 | 3 = (1*2) | 4 | 5 = (3/4) |
| **MBP Option 1** | 56,480 | 11,250,000 | 635,400,000,000 | 1,496,000,000,000 | 42% |
| **MBP Option 2** | 67,210 | 11,250,000 | 756,112,500,000 | 1,496,000,000,000 | 51% |
| **MBP Option 3** | 114,070 | 11,250,000 | 1,283,287,500,000 | 1,496,000,000,000 | 86% |

Under this scenario, the cost of the MBP is TZS 635 -1,283 billion (US$ 397-635 million) or 42-86% of the total health budget.

**Scenario 2: About 13,500,000 or 30% of the population seeks health care under the MBP interventions during the year**

**Table 6: About 30% of the population seek health care under the MBP interventions**

| Interventions | MBP cost per capita | 30% of population | MBP cost if 30% seek health care | Total Health Sector budget (TZS, million; 2013/14) | MBP cost as % of total health budget |
|---|---|---|---|---|---|
| | 1 | 2 | 3 = (1*2) | 4 | 5 = (3/4) |
| **MBP Option 1** | 56,480 | 13,500,000 | 762,480,000,000 | 1,496,000,000,000 | 51% |
| **MBP Option 2** | 67,210 | 13,500,000 | 907,335,000,000 | 1,496,000,000,000 | 61% |
| **MBP Option 3** | 114,070 | 13,500,000 | 1,539,945,000,000 | 1,496,000,000,000 | 103% |

Under this scenario, the total cost of the MBP ranges between TZS 762 – 1,540 billion (US$ 476-962 million) or 51-103% of the total health budget.

**Scenario 3: About 18,000,000 or 40% of the population seeks health care under the MBP interventions during the year**

**Table 7: About 40% of the population seek health care under the MBP interventions**

| Interventions | MBP cost per capita | 40% of population | MBP cost if 40% seek health care | Total Health Sector budget (TZS, million; 2013/14) | MBP cost as % of total health budget |
|---|---|---|---|---|---|
| | 1 | 2 | 3 = (1*2) | 4 | 5 = (3/4) |
| **MBP Option 1** | 56,480 | 18,000,000 | 1,016,640,000,000 | 1,496,000,000,000 | 68% |
| **MBP Option 2** | 67,210 | 18,000,000 | 1,209,780,000,000 | 1,496,000,000,000 | 81% |
| **MBP Option 3** | 114,070 | 18,000,000 | 2,053,260,000,000 | 1,496,000,000,000 | 137% |

Under this scenario, the total cost of the MBP ranges between TZS 1,016 -2,053 billion (US$ 635-1,283 million) or 68-137% of the total health budget.

## 2.6 Cost of the MBP using health facility cost centre

An alternative method of arriving at the MBP cost is to use the cost structure and unit costs for outpatients and inpatients identified by the MoHSW under the National Essential Health Care Interventions Package – NEHCIP-Tz, 2013. The facility unit costs are shown on Table 7. As Table 8 shows, mean unit cost are: TZs 50, 120, 649 and 2,490 million for dispensary, health centre, level 1 hospital and regional hospital, respectively. Inpatient units costs are: TZs 1, 72, 661 and 2,100 million for dispensary, health centre, Level 1 hospital and regional hospital, respectivery. These unit costs are for all health care conditions.

**Table 8: Unit costs by cost centre per year (TZs, million)**

| | Dispensary | | | Health Centre | | | Level 1 hospital | | | Regional hospital | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Cost centre** | Medium | Mean | % | Medium | Mean | % | Medium | Mean | % | Medium | Mean |
| **Total Cost** | 44 | 51 | | 197 | 192 | | 1,330 | 1,310 | | 5,330 | 4,590 |
| Outpatient (total) | **44** | **50** | **98** | **124** | **120** | **63** | **644** | **649** | **50** | **2,620** | **2,490** |
| **General+** | 36 | 40 | 78 | 95 | 90 | 47 | 454 | 483 | 37 | 2,210 | 2,170 |
| **RCH** | 8 | 10 | 19 | 22 | 27 | 14 | 95 | 115 | 9 | 149 | 183 |
| **Dental** | 0 | 0 | 1 | 1 | 3 | 2 | 45 | 51 | 4 | 132 | 133 |
| Inpatient (total) | **0** | **1** | **2** | **71** | **72** | **38** | **682** | **661** | **50** | **2,340** | **2,100** |
| **General+** | 0 | 1 | 1 | 42 | 43 | 22 | 406 | 371 | 28 | 869 | 920 |
| **Paedriatric** | 0 | 0 | 0 | 11 | 11 | 6 | 92 | 107 | 8 | 352 | 375 |
| **Maternity** | 0 | 0 | 0 | 13 | 18 | 9 | 168 | 183 | 14 | 527 | 805 |

Source: MoHSW NEHCIP-Tz, 2013

In order to link the unit costs total cost, the number of health facilities were sourced from MoHSW Health Management Information System (HMIS). The number of health facilities in Mainland Tanzania is shown on Table 9.

### Table 9: Tanzania health infrastructure[3], 2009-2011.

| Facility type | Ownership | 2009 | 2010 | 2011 |
|---|---|---|---|---|
| Dispensaries | Govt | 3,711 | 3,889 | 3,990 |
| | FBOs | 668 | 625 | 597 |
| | Parast | 166 | 168 | 192 |
| | Priv | 855 | 787 | 790 |
| | **Total** | **5,400** | **5,469** | **5,607** |
| Health Centres | Govt | 402 | 434 | 467 |
| | FBOs | 117 | 134 | 139 |
| | Parast | 8 | 10 | 19 |
| | Priv | 55 | 55 | 59 |
| | **Total** | **582** | **633** | **684** |
| Hospitals | Govt | 96 | 95 | 112 |
| | FBOs | 98 | 101 | 111 |
| | Parast | 7 | 8 | 9 |
| | Priv | 31 | 36 | 33 |
| | **Total** | **232** | **240** | **264** |
| ***Total Health Facilities*** | **Govt** | **4,209** | **4,418** | **4,569** |
| | **FBOs** | **883** | **860** | **847** |
| | **Parast** | **181** | **186** | **220** |
| | **Priv** | **941** | **878** | **882** |
| | ***Total*** | ***6,214*** | ***6,342*** | ***6,518*** |

Source: MOHSW HMIS data tables, 2009, 2010, 2011

Using the unit costs and number of facilities, the following total costs were derived as shown on Table 10.

### Table 10: Outpatient and inpatient total cost per year, 2009-2013[4]

| Outpatient and inpatient total cost per year , 2009-2013 | | | | | |
|---|---|---|---|---|---|
| **Cost centre** | 2009 | 2010 | 2011 | 2012 | 2013 |
| **Dispensaries** | 275,400 | 278,919 | 285,957 | 290,649 | 310,724 |
| **Health centres** | 111,744 | 121,536 | 131,328 | 141,120 | 158,458 |
| **Hospitals** | 684,400 | 708,000 | 778,800 | 818,133 | 908,600 |
| **Total** | 1,071,544 | 1,108,455 | 1,196,085 | 1,249,902 | 1,377,782 |

Source: Authors, based on Table 8 and 9 above.

Based on the burden of disease analysis (Annex 4), about 24-25 million Tanzanians are likely to seek health care per year. If we assume that those people seeking health care under the MBP will range between a low of 45% and a high of 75% of the total Tanzanians seeking care, then Table 10 provides a summary of the cost of MBP using health facilities cost centre.

[3] FBP – Faith based providers
[4] 2012 and 2013 costs are estimates.

**Table 11: MBP cost**

| Interventions | Cost per capita | | MBP total cost per year | | MBP cost/total health budget (2013/14) |
|---|---|---|---|---|---|
| | TZS | USD | TZS (billion) | USD (million) | |
| Option 1(45% of all conditions under MBP program) | 55,146 | 34 | 620-1,147 | 388-717 | 41-77% |
| Option 2 (54% of all conditions under MBP program) | 65,622 | 41 | 744 - 1,376 | 465-860 | 50-92% |
| Option 3 (75% of all conditions under MBP program) | 116,016 | 73 | 1,033 - 1,911 | 646-1,194 | 69-128% |

Under the health facility costing method, the MBP cost per capita ranges between TZs 55,146 (US$ 34) to TZs 116,016 (US$ 73) or total costs between TZs 620 -1,911 billion. These MBP costs are about 41-128% of the 2013/14 total health budget.

## Summary

Thus, based on the two cost analyses above, the guaranteed minimum benefit package is expected to cost a low of TZS 620 billion (USD 388 million) and a high of 1,911 billion (USD 1,194 billion).[5] These resources are about TZS 55,146 (USD 34) to TZS 116,016 (USD 73) per capita. As discussed above, WHO has estimated that delivery of an essential package can cost about US$ 34 per capita per year. Other estimates by the Commission on Macroeconomics put the cost at US$ 38 per capita per year. Another estimate by High Level Task Force (2009) arrived at US$ 54 per capita per year. Thus, Tanzania's MBP estimated costs are within doable levels if the government is resolute about providing a minimum set of health care for its citizens.

**COST OF TANZANIA MINIMUM BENEFIT PACKAGE (MBP)**

**TZS 620 -1,911 BILLION OR TZS 55,146 -116,016 (USD 34 - 73) PER CAPITA**

[5] Comparing the two analyses, the difference at the low range is 2.4 percentage points (Option 1:TZS 635billion vs TZS 620 billion) and the high range is 6.9 percentage points difference (Option 3: 2,053 billion vs TZS 1,911 billion. We have decided to take the lower ranges as the cost of the MBP.

# 3.0 SERVICE DELIVERY SYSTEM OF THE MBP

## 3.1 Health care delivery system

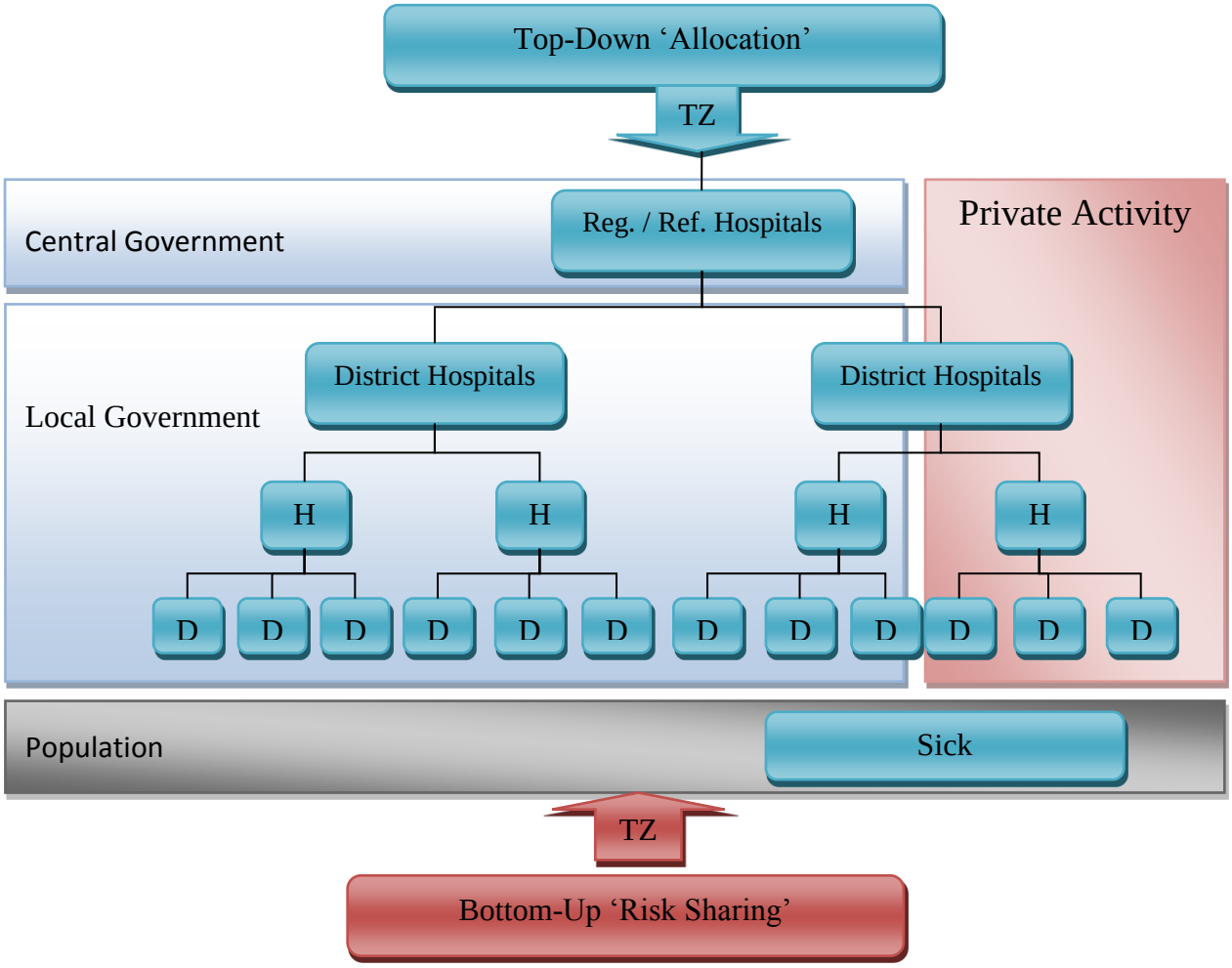
The thrust of the MBP is to ensure the minimum health services are available to all households in Tanzania at the primary level as well as through the referral system if advanced care is needed. The MBP will be provided by all public and private health providers in Tanzania that are legally accredited /approved to provide health services. To facilitate the efforts of both public and private health facilities and stakeholders in delivering quality health services, the MOHSW compiled the required basic standards at each level of the Tanzanian Health System. The Tanzania health system is organized into five levels: level 1: dispensary level; Level 2: health centre level; Level 3: district/council level; Level 4: regional hospital level and Level 5: National, Referral and Specialized Hospital level.

Figure 3 illustrates the organisation of the health care delivery system while also indicating some challenges in recent years in fully funding this system. These issues are discussed in other studies in this series.

The basic standards at facility levels address three main concerns:

- How best the health needs of the population can be achieved in a consistent national health care delivery coverage plan (accessibility, equity, and sustainability).
- How best the health system can meet the current and future public health challenges (Communicable and non-communicable diseases, and also Health Care Financing, HRH).
- To ensure that each level is prepared and equipped to implement the corresponding interventions with the required level of quality.
- These concerns are well articulated in the NEHCIP-Tz essential package document. At each level, a list of interventions to be performed (Services and Management) is defined by the NEHCIP-Tz. The 2013 essential package is an integrated collection of cost effective interventions that address the main diseases, injuries and risk factors as mentioned above and it extends to all levels of health care provision as detailed below. An important assumption of the NEHCIP-Tz is that the different levels of facility are linked by an efficient Referral System both in terms of transfer of patients and in terms of supportive supervision. The Council Health Management Team (CHMT) is responsible for organizing and coordinating the Referral System in the Council, under the guidance of the Regional Health Management Team (RHMT).

**Figure 3: The health delivery system in Tanzania and its funding**




The MOHSW prepared guidelines indicating "Basic Standards for Health Facilities" at different levels a reference tool for health facilities in their strategic and yearly planning exercises which also includes the required Operational Budget as discussed briefly below:

**Level 1: Dispensary Services.** This is the first formal health unit of level one health services. It is a primary health facility which offers outpatient services including reproductive and child health services, and diagnostic services. A dispensary caters for 6,000-10,000 people and oversees all the village health services. The Ministry of Health has standardized these units in all parameters including the staffing level, equipment, drugs, and medical supplies and approved building plans. Dispensary Committees have been established (though not in all dispensaries). Dispensaries provide comprehensive Primary Health Care services which include the following: Health Education and IEC to people being served by the dispensary; Treatment of diseases; Reproductive and Child Health Services, and Family Planning; Integrated Management of Childhood Illnesses (IMCI); School Health Services including HIV/AIDS, Immunization Services to children and mothers; Continuation of treatment for TB, Leprosy, Mental and other diseases in collaboration with higher level facilities (Rural

Health Centre in particular), Outreach Services and mobile clinics with special focus to nomadic communities; Prepare Dispensary Health Plans and monitor their implementation; Where appropriate provide expertise and supervision of health care activities in the villages served by the dispensary; Prepare progress reports for submission to the relevant committee established by the Council; Refer patients with complicated conditions to higher levels as necessary following the established referral system; and Collection and utilization of data to provide feedback to various levels including the community.

**Level 2: Health Centre Services.** This is the second level health services. It is a primary health facility, which offers Outpatient and In-patient services, maternity care, laboratory, and dispensing and mortuary services. A Health Centre shall cater for 50,000 people and supervise all the dispensaries in the Division. The Ministry of Health has standardized the staffing level, equipment, drugs, medical supplies, reagents, dental oral health and building plans. These standards are revised as need arises. A Health Centre under the Local Government Authority through the Health Centre Committee and Management Team, Provide promotive, preventive, curative and rehabilitative services; act as the first referral centre from dispensaries in its catchment's area; keep health service data and records according to given guidelines. Provide feedback to other levels including dispensaries. Each Health Centre is expected to have a communication facility including transport for referral of patients to hospitals and supervision. Lack of transport/communication undermines the services to the mothers and children, and is a key factor contributing to high maternal and infant mortality rates.

**Level 3: District Hospital Services.** Hospital services in the district are offered by the district hospital and other hospitals (FBO and for profit hospitals). The district hospital under the council through the hospital governing committee and hospital Management Team provide health care to the catchment's population which include: out-patient and In-patient care; act as the second referral level from dispensary; primary health care in the district or catchment's area; general surgical and obstetric operations; act as referral centre for patients from lower level health facilities of the district; teaching and training of middle and operational level health cadres; gives supportive supervision and inspection and provides technical skills to lower health facilities in the district and refers patients to the regional hospital.

**Level 4: Regional Hospital Services.** This is a hospital establishment providing referral services from district hospital(s). The regional hospital under the management of the Regional Secretariat through the Regional Hospital Board and Hospital Management Team, has the following functions: provide all services offered at district level but at a higher level of expertise; offer referral services from district hospital(s); conduct teaching and training of middle and operational level health cadres; offer specialized treatment in Medicine, Surgery, Obstetrics and Gynaecology and Paediatrics including: Eye, Dental, Mental illnesses, Orthopaedics and Trauma. The Regional Hospital is expected to have a communication and transport system appropriate for functions and services rendered.

**Level 5: National, Referral and Specialized Hospital Services.** This is the highest level of hospital services in the country, which acts as referral centre for regional hospitals. The National hospital (Muhimbili) is supervised by the Ministry of Health through the Board of Muhimbili National Hospital. It also acts as zonal referral hospital for the Eastern Zone. It has transport/communication facilities so as to provide services as required. There are two voluntary agency zonal referral hospitals, namely, Bugando Medical Centre and KCMC. Another national and zonal referral hospital is Mbeya Hospital owned by the government. Referral Hospitals are equipped with the best mix of qualified specialists and consultants as well as sophisticated modern medical equipment so that they are able to handle cases, which are currently being referred abroad.

Implementation of MBP as key towards Universal Health Coverage (UHC) is meant to contribute to the realization of the health policy of improving the status of the population and higher coverage of health services for the poor through partnership with the community which would be achieved through district health service boards and health facility governing bodies. Consideration of cost effectiveness of interventions would be an integral part of the planning process. Where there are more than one feasible ways of achieving similar results, the least costly approach would be chosen. The MBP activities would take place at the lowest feasible level of the health care system or community and referrals as needed. In Annex 1 is a full summary table of "Basic Standards for Health Facilities" at different levels in terms of catchment population, priority disease/ Intervention areas covered, essential drug scope, physical facility (building and equipment) and Human Resource for Health.

Accountability is measured in both financial (input 'costs' and expenditure (control)) and performance (output/outcome) terms.[6] The CHMTs have their own health plans with clearly defined activities. Each activity is 'costed' and has quantifiable outcome and/or output indicators as well as achievable targets. Adhering to these principles has meant a move towards a more tight planning approach, ensuring that current scientific knowledge and epidemiological evidence are translated into action at the district. The principles and their consequences do not deprive the districts, peripheral units, or the communities the authority to set priorities, but provide them with a rational framework within which to set their priorities in the spirit of health reform.

The Ministry of Health provided a framework for planning for districts i.e. the Comprehensive Council Health Planning (CCHP) guidelines which attempt to give exhaustive and detailed guidance on all technical aspects of the services. These guidelines are meant to facilitate a co-ordinated and integrated approach to planning in the districts. Other guidelines include the guidance to LGAs for utilisation of the Health Basket, standard treatment guidelines, and guidelines under specific disease programmes which are essential in the implementation of the minimum health package.

[6] Note: WHO and public health definitions of 'finance' and 'performance' are used throughout the text.

Annex 3 provides a summary of the basic standards and essential drugs list in the country's health care system.

## 3.2 MBP population coverage

It is envisaged that the whole population will be eligible to access the MBP package, with choices of extra benefits above the minimum benefits to be defrayed by the beneficiary. The poor and vulnerable groups (as identified by the 'Inclusion of the poor' options paper) will not be required to pay contributions but are eligible for MBP health benefits. It is envisaged that the population seeking health care under the MBP will be 11.5 – 18 million people (Annex 4).

It is also envisaged that registration to some form of ***health insurance will be made mandatory to all Tanzanians.*** All public and private employed persons will be mandated to enrol in a social security fund such as NHIF/NSSF/PPF, etc. The self employed, farmers/rural communities and other households will be mandated to register under CHF or other health insurance of their choice. Awareness campaigns will be undertaken by local government leadership throughout the country to explain the benefits of health insurance and the mandatory requirement for registration.

## 3.3 MBP provider mechanism

The MBP will be provided by both public and private health care providers through insurance mechanism. Options for insurance system will be decided by the Government as informed by the Community Health Fund (CHF) and Insurance Market options papers. The current vision of the MOH supporting the options papers is that the MBP will be provided through multiple insurance systems. To begin with, the informal and farming population will be enticed or mandated to join a nationally designed CHF. The CHF will be designed to have both national and local government structures and operations. The private and public employed population will be mandated to enrol to insurance firms of their choice, who will provide the MBP and extra benefits. In the long term (20-25 years), experience learned will facilitate moving into a mandatory health insurance for all residents offering a gradually expanding MBP while private health insurance is offering voluntary duplicative, complementary and supplementary insurance, the latter two sharply delineated from MBP as the country moves closer towards achieving universal health coverage.

The CHF will establish procedures for enrolment, collection of co-payments, government and donor support and administration and accounting of the resources. The CHF will also maintain a single pool at national level, including reserves from insurers.

***Provider payment***: Capitation payment mechanisms is expected to be the main form of MBP provider payment for both inpatient and outpatient services in primary health care facilities and cases referred in the system. Capitation will be based on utilization rates and costs projected on a quarterly basis, and would involve advance payments to service providers subject to periodic reviews and adjustments. It is expected that capitation will foster efficiency and drive down costs in primary health care delivery.

CHF will establish a ***Consolidated Claims Management Department*** (CCMD) whose mandate is to manage claims from various service providers. It is expected that if the CCMD is well equipped with modern technology as envisaged in the MOHSW eHealth strategy, and staffed by experienced and competent claims personnel; claims will be vetted and settled expeditiously and efficiently. The CHF management can decide to establish CCMD zonal claims processing centers across the country, to bring this service closer to the service providers.

## 3.4 Technology

The MOHSW will make use of the existing eHealth solutions, including HMIS, HRHIS and the electronic integrated disease surveillance and response (eIDSR) system. Additionally, the Ministry has in place a National eHealth Strategy (July 2013-June 2018) which will be used to develop appropriate technology for implementing the MBP to improve service delivery and cost effectiveness of the MBP scale-up towards universal health care coverage. It is hoped that implementation of all phases of the health enterprise architecture (EA) will incorporate the IT requirements for effective implementation of the MBP.

At the initial stages in the implementation of the MBP, the government could consider greater use of mobile technology such as M-pesa, TIGO pesa or Airtel money to collect co-payment premiums and other IT requirements. The link to existing IT systems at the LGAs level will be an added advantage as well as learning from CHF piloted use of user friendly technologies.

# 4.0 MBP FINANCING

The guaranteed minimum benefit package is expected to be largely funded by public resources completed by private and development partner's support. The justification for public spending to provide the MBP to its citizens is attempted below.

## 4.1 Justifications for public spending: externalities and cost-effectiveness

### *4.1.1 Public Health Interventions and Externalities*

Public health is "the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals". The dimensions of health can encompass "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity", as defined by the WHO. Public health incorporates the interdisciplinary approaches of epidemiology, biostatistics and health services. Environmental health, community health, behavioural health, health economics, public policy, insurance medicine and occupational health (respectively occupational medicine) are other important sub-fields.

The focus of public health intervention is to improve health and quality of life through the prevention and treatment of disease and other physical and mental health conditions, through surveillance of cases and health indicators, and through the promotion of healthy behaviours at the population level. Public activities that therefore are targeted at populations as a whole and not at individual level therefore address important negative externalities (for example, reducing smoking, high risk sexual behaviours, etc) or support action with positive externalities (for example, promoting hand washing, breast-feeding, or vaccination programs).

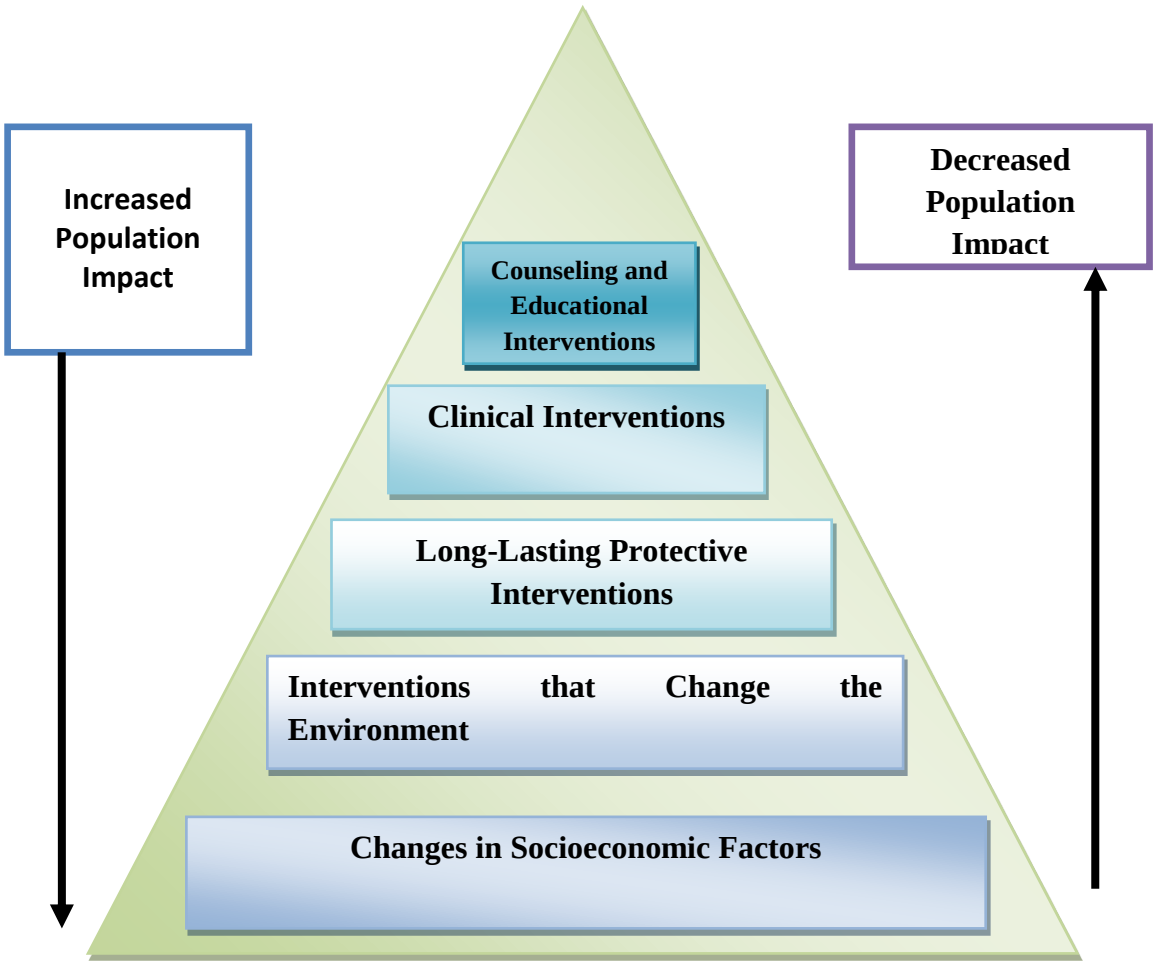
Modern public health practice requires multidisciplinary teams of professionals including physicians. A 5-tier pyramid best describes the impact of different types of public health interventions and provides a framework to improve health. In this pyramid (Figure 4) efforts to address socioeconomic determinants are at the base, followed by public health interventions that change the context for health (e.g., clean water, safe roads), protective interventions with long-term benefits (e.g., immunizations), direct clinical care, and, at the top, counselling and education. In general, public action and interventions represented by the base of the pyramid require less individual action but more public effort and have the greatest population impact. However, because these actions may address social and economic structures of society, they can be more controversial, particularly if the public does not see such interventions as falling within the government's appropriate sphere of action.

Interventions at the top tiers are designed to help individuals rather than entire populations, but they could theoretically have a large population impact if universally and effectively applied. In practice, however, even the best programs at the pyramid's higher levels achieve

limited public health impact, largely because of their dependence on long-term individual behavioural change.

***Socioeconomic Factors***: The bottom tier of the health impact pyramid represents changes in socioeconomic factors (e.g., poverty reduction, improved education); often referred to as social determinants of health that help form the basic foundation of a society. Socioeconomic status is a strong determinant of health, both within and across countries. Although the exact mechanisms by which socioeconomic status exerts its effects are not always apparent, poverty, low educational attainment, relative deprivation, and lack of access to sanitation increase exposure to environmental hazards. Educational status is also tightly correlated with cardiovascular risk factors, including smoking.

**Figure 4: Health Impact Pyramid**




Although poverty increases ill health within a society, economic development can also increase illness and death from non-communicable disease. As living standards and life expectancy improve, risk for cardiovascular disease and some cancers increases. Much of this increase results from modifiable risk factors related to overconsumption of tobacco,

unhealthy food habits, and alcohol, with a concurrent decrease in physical activity. Greater wealth can also lead to more roads and an increase in motor vehicle use, which can result in increased outdoor air pollution and more injury and death from traffic crashes.

A third of the world's urban population lives in slums. Substantial health improvements in high-poverty areas will require improved economic opportunities and infrastructure, including reliable electric power, sanitation, transport, and other basic services. As the World Health Organization's Commission on Social Determinants of Health reported, "Social injustice is killing people on a grand scale."

***Interventions that change the environment***: The second tier of the pyramid represents interventions that change the environmental context to make healthy options the default choice, regardless of education, income, service provision, or other societal factors. The defining characteristic of this tier of intervention is that individuals would have to expend significant effort not to benefit from them. For example, salt iodination—which is difficult to avoid when it is the public supply—not only improves individual health, but also provides economic benefits by reducing health spending and productivity losses.

Other contextual changes that create healthier defaults include clean water, air, food and improvements in road infrastructure. Strategies to create healthier environmental contexts also include designing communities to promote increased physical activity; passing smoke-free laws; and taxing tobacco, alcohol, and unhealthy foods.

***Long-Lasting Protective Interventions****:* The third level of the pyramid represents 1-time or infrequent protective interventions that do not require ongoing clinical care; these generally have less impact than interventions represented by the bottom 2 tiers because they necessitate reaching people as individuals rather than collectively. Historic examples include immunization which protect mothers and children from communicable diseases; smoking cessation programs which increase quit rates; life expectancy among men who quit at age 35 is almost 7 years longer than for those who continue to smoke; male circumcision, a minor outpatient surgical procedure, can decrease female-to-male HIV transmission by as much as 60%. Scale-up could potentially prevent millions of HIV infections in Sub-Saharan Africa; a single dose of azithromycin or ivermectin can reduce the prevalence of onchocerciasis, a major cause of blindness, etc.

***Clinical Interventions***: The fourth level of the pyramid represents on-going clinical interventions, of which interventions to prevent non-communicable diseases (NCDs) have the greatest potential health impact. Although evidence-based clinical care can reduce disability and prolong life, the aggregate impact of these interventions is limited by lack of access, erratic and unpredictable adherence, and imperfect effectiveness. Non-adherence is especially problematic for chronic conditions that are usually asymptomatic, such as hypertension, hyperlipidemia, and diabetes. At least a third of patients do not take medications as advised, and non-adherence cannot be predicted from socioeconomic or demographic characteristics.

Rigorous accountability, incentives for meaningful outcomes (e.g., blood pressure and cholesterol control), and systems to enable improved performance are all essential to improve health care system performance. Electronic health records have the potential—if and only if they are implemented with prevention and accountability as guiding principles—to facilitate greatly improved preventive and chronic care. This goal is more likely to be attained if electronic record keeping is implemented along with changes in both financial incentives and physician practices to proactively support preventive care and control of chronic diseases.

***Counselling and Educational Interventions***: The pyramid's fifth tier represents health education (education provided during clinical encounters as well as education in other settings), which is perceived by some as the essence of public health action but is generally the least effective type of intervention. The need to urge behavioural change is symptomatic of failure to establish contexts in which healthy choices are default actions.

Counselling, either within or outside the clinical context, is generally less effective than other interventions; successfully inducing individual behavioural change is the exception rather than the rule. For example, although clear, strong, and personalized smoking cessation advice, even in the absence of pharmacological treatment, doubles quit rates among smokers who want to stop and should be the norm in medical care, it still fails to help many more of those who are motivated to quit.
Nevertheless, educational interventions are often the only ones available, and when applied consistently and repeatedly may have considerable impact. An example of a successful evidence-based educational intervention is trained peer counsellors advising men who have sex with men about reducing HIV risk.

Although these public health interventions mentioned above are of critical importance, public health involves far more than health care. The fundamental composition, organization, and operation of society form the underpinnings of the determinants of health, yet they are often overlooked in the development frameworks to describe health system structures.

As an integrated public health system however the current delivery system cannot easily distinguish between population (social medicine and public health) and individual (medical and social services) target actions and markets at the institutional and operational level. This makes it therefore difficult to prioritize on this basis alone and therefore turn important theoretical considerations into practical operational (and budgetary) realities. Again addressing these and other supply side and regulatory authority institutional issues, and options that might flow from these, is beyond the scope of the discussion here.

### *4.1.2 The Cost-Effectiveness of Health Interventions*

Resources for the delivery of health services are limited in every country and choices need to be made as to which health services should be financed by the government. Resource allocation decisions imply making trade-offs between funding one type of health program or another. For example, choosing to construct a hospital may take funding, personnel, and

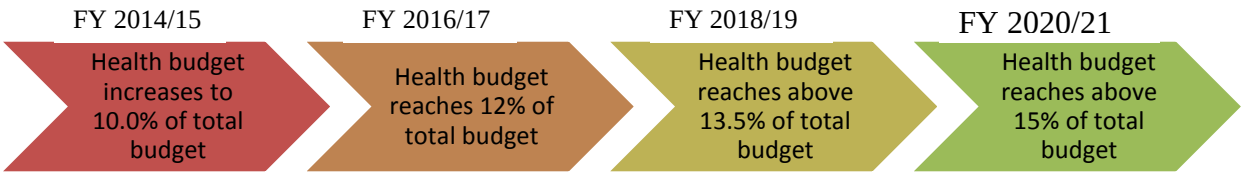
materials away from other health services or spending available resources on a health promotion campaign will mean the available funds cannot be spent on another disease or treatment area. One represents the so-called 'opportunity cost' of the other. In order to evaluate which trade-offs are "worth" the cost, health planners can use the methodology of cost-effectiveness analysis/assessment. Where health effects are measured in common units across interventions, cost-effectiveness ratios can be compared. The most common form of analysis is cost-effectiveness analysis (CEA). In cost-effectiveness analysis benefits are measured in natural units, for example, units of blood pressure reduced or statistical lives saved. However, because the denominators of the cost-effectiveness ratios are not comparable, the purposefulness of the analysis is reduced. Ideally, all programs would be evaluated in the same (health) outcome units the most common measure being QALYs (quality adjusted life years) and DALYs (disability adjusted life years). Cost effectiveness in health interventions and examples are discussed further in the next section.

## 4.2 Options for public financing of the MBP

**Option 1: The Government is urged to increase the budget for the health sector**

Public health funding is low – about 9 percent (TZS 1.496 trillion in 2013/14) of total budget compared with the government's commitment under the Abuja agreement to increase health budget to 15 percent. In terms of health per capita spending, nominal public health allocations per capita increased from TZS 22,655 (USD 15.62) in FY 2009/10 to TZS 29,098 (USD 19.59) in FY 2010/11, but decreased to TZS 28,082 (USD 17.63) in FY 2011/12. However, in real terms, despite an increase in the per capita allocations for health from TZS 12,160 (USD 8.39) in 2009/10 to TZS 14,431 (USD9.62) in 2010/11, there was a substantial decrease to TZS 12,657 (USD7.95) in 2011/12. The per capita allocation is substantially below the WHO recommendation of ***54 USD*** and is also well below the HSSP III projection of USD 20.09 by 2011/12, and the MKUKUTA target of TZS 52,800 (USD33) by 2015.

Thus, given the government's commitment to provide minimum health care to all Tanzanians, which is expected to cost USD 34-73 per capita, the health budget has to be increased progressively towards the WHO and Abuja target by 2020. The incremental health budget schedule could be as shown below:




**Option 2: The Government is urged to allocate 2.5 percent of all VAT revenue to a dedicated CHF account**.

In order to defray the cost of health care to the poor under the MBP, a stable and reliable financing mechanism is required. VAT revenue outturn is fairly reliable. The Government could allocate 2.5 percent of all VAT revenue to a dedicated CHF account to defray the cost of health care provision to the poor and vulnerable groups of society. Ghana has adopted this option with much success in terms of having stable and reliable funding for their minimum benefit package implementation. If the government approves this recommendation, the expected VAT revenue that will be ring-fenced for CHF would be about TZS 45 billion in 2014/15 based on current VAT revenue outturn.

**Option 3: The Government is urged to establish a Compulsory Health Insurance Levy (CHIL).**

The levy could be used as a mechanism of cross-subsiding the poor and vulnerable groups under the MBP. The CHIL Fund could be financed from several sources including the following:

- Mandated pay of 5 percent of gross income earned by Mobile phone companies, payable annually to the CHIL. According to minister Makamba (Guardian 9th June 2012), in the year 2010 mobile phone companies in Tanzania earned $1 billion (Sh1.6 trillion), but paid only $1.7 million (Sh2.7 billion) in taxes. But, during the same period, Kenya telecommunication companies earned $3.6 billion and paid taxes $78.3 million from mobile phone companies, Uganda telecommunication companies earned $901 million and paid taxes $31.3 million while Rwanda telecommunication companies earned $365 million and paid taxes $14 million nearly ten times what the Tanzania government earned. According to Tanzania Communications Regulatory Authority (TCRA) there are 19.5 million mobile phone subscribers who spend an average of TZS 8,806 per month. This translates into potential income of TZS 2 trillion per year. A 5 percent compulsory levy will yield TZS 100 billion that will be collected by Tanzania Revenue Authority (TRA) and deposited directly to the CHIL Fund.

- Impose a Foreign exchange transaction tax at the rate of 1.5 percent to be deposited to the CHIL Fund annually by all banks and Foreign exchange bureaus. Assuming TZS 7.5 trillion is exchanged annually, TZS 112.5 billion will be deposited to the CHIL Fund.

- A compulsory 2 percent levy on the gross income of mining companies to be collected by TRA and deposited to the CHIL Fund. Assuming on average mining companies gross income is TZS 2.88 trillion; this source of revenue will yield TZS 57.6 billion for the CHIL Fund.

Summing up the revenue yield for the four options above, the CHIL Fund will be funded initially at TZS 270.1 billion. These resources are considered adequate to defray the initial cost of putting in place necessary institutional, management and eHealth systems for

implementing the MBP as well as moving towards universal health care coverage in the country.

## 4.3 Leverage private business and public-private partnerships in health financing

In order to fast track achievement of universal health coverage through implementation of the MBP, the government is urged to harness and leverage private sector resources for health. In particular, by first ensuring all businesses implement the social security law which requires businesses to enrol their workers to insurance funds and co-pay provision by the employee.

Second, the government could introduce some form of 'Community Reinvestment Act' (CRA) in which businesses in addition to their tax obligations will undertake corporate social responsibility of 'known' magnitudes. The CRA would be designed to be friendly to business, observing that businesses are established to maximize profit – which will require ensuring win-win by all concerned parties.

Third, the government will foster greater public-private partnerships (PPPs) in health care service provision. In particular, to forge service level agreements (SLAs) with both for profit and not-for-profit private health care providers. Options for PPPs in delivering the MBP will be elaborated in the PPP options paper in these series.

## 4.4 Social and private health insurance

Coverage in health insurance is low. As of 2012, only 7 million or 15.6 percent of the population (45 million) had any form of health insurance cover, mostly through public providers such as NHIF, NSSF/SHIB, CHF and TIKA. It is therefore essential to develop a strategy for increasing public and private health insurance coverage.

## 4.5 Co-payment

The following section provides a summary of co-payments based on the costing in Section 2. The analysis shows the various premium levels and the gap the government has to defray to cover health care access for the poor and vulnerable groups of society.

**Option A: Free provision of the MBP package of interventions to all citizens that seek health care. Beneficiary in need of extra health care interventions outside the MBP pay co-payment.**

### Table 12: No co-payment in financing the MBP interventions

| MBP population seeking health care | MBP Cost (TZS, billion) | Co-payment premium rate | Government financing (TZS, billion) | Total Health Sector budget (TZS, billion; 2013/14) | MBP cost as % of total health budget | Govt financing of MBP as % total MBP costs |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | 4 = (4-3) | 6 | 7 = (2/6) | |
| 11,250,000 | 635 | 0 | 635 | 1,496 | 42% | 100% |

| | | | | | | |
|---|---|---|---|---|---|---|
| 13,500,000 | 762 | 0 | 762 | 1,496 | 51% | 100% |
| 18,000,000 | 1,016 | 0 | 1,016 | 1,496 | 68% | 100% |

Under Option A, if the Government decides to guarantee provision of the MBP health care services free to all its citizens, it has to bear the whole MBP cost, which ranges between TZS 635 – 1,016 billion per year. Since access for services under this option is free, the poor and vulnerable will be automatically exempted since there are no co-payments. Private providers will be reimbursed for services provided under the MBP agreed modalities – either through capitation or other methods. Scaling up the MBP to universal coverage is essentially shouldered by the government, which given frequent price increases of drugs, labour costs and other factors, may not be sustainable – especially taking into account the need to improve quality of health service provision under the MBP interventions.

**Option B: Flat rate of TZS 10,000 for co-payment payers, the poor and vulnerable are exempted and their cost defrayed by government. Beneficiary in need of extra health care interventions outside the MBP pay extra co-payment.**

**Table 13: Co-payment of TZS 10,000 for financing the MBP interventions**

| MBP population seeking health care | Exempted from co-payment* | Co-payment payers | Premium level (TZS) | Total co-payment revenue (TZS, billion) | MBP Cost (TZS, billion) | Govt financing of MBP | Co-payment as % of total MBP costs | Govt financing of MBP as % total MBP costs |
|---|---|---|---|---|---|---|---|---|
| **1** | 2 | 3 = (1-2) | 4 | 5 = (3*4) | 6 | 7 = (6-5) | 8 = (5/6) | 9 = (7/6) |
| 11,250,000 | 7,482,000 | 3,768,000 | 10,000 | 38 | 635 | 597 | 6.0% | 94.0% |
| 13,500,000 | 7,482,000 | 6,018,000 | 10,000 | 60 | 762 | 702 | 7.9% | 92.1% |
| 18,000,000 | 7,482,000 | 10,518,000 | 10,000 | 105 | 1,016 | 911 | 10.3% | 89.7% |

Under Option B, the population that is capable of paying for health care services is asked to pay a small co-payment of TZS 10,000. This raises TZS 38-105 billion or 6.0-10.3% of the total cost of financing the MBP. As the paper on Inclusion of the poor observes, there are no challenges in paying the TZS 10,000 co-payment. However, this level of premium is too low and the burden of financing the MBP is still left to the Government and collective arrangements, at 89.7-94.0% level of financing. As in Option A above, scaling up the MBP to universal coverage may not be sustainable with such low co-payment premium.

**Option C: Flat rate of TZS 20,000 for co-payment payers, the poor and vulnerable are exempted and their cost defrayed by government. Beneficiary in need of extra health care interventions outside the MBP pay extra co-payment.**

### Table 14: Co-payment of TZS 20,000 for financing the MBP interventions

| MBP population seeking health care | Exempted from co-payment** | Co-payment payers | Premium level (TZS) | Total co-payment revenue (TZS, billion) | MBP Cost (TZS, billion) | Govt financing of MBP | Co-payment as % of total MBP costs | Govt financing of MBP as % total MBP costs |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 = (1-2) | 4 | 5 = (3*4) | 6 | 7 = (6-5) | 8 = (5/6) | 9 = (7/6) |
| 11,250,000 | 7,482,000 | 3,768,000 | 20,000 | 75 | 635 | 560 | 11.8% | 88.2% |
| 13,500,000 | 7,482,000 | 6,018,000 | 20,000 | 120 | 762 | 642 | 15.7% | 84.3% |
| 18,000,000 | 7,482,000 | 10,518,000 | 20,000 | 210 | 1,016 | 806 | 20.7% | 79.3% |

Under Option C, the population that is capable of paying for health care services is asked to pay co-payment of TZS 20,000. This raises TZS 75-210 billion or 11.8—20.7% of the total cost of financing the MBP. As the paper on Inclusion of the poor observes, there are no challenges in paying the TZS 20,000 co-payment. However, this level of premium is also too low and the burden of financing the MBP is still left to the Government, at 79.3 – 88.2% level of financing. As in Option A and B above, scaling up the MBP to universal coverage may not be sustainable with this low premium co-payment.

**Option D: Flat rate of TZS 30,000 for co-payment payers, the poor and vulnerable are exempted and their cost defrayed by government. Beneficiary in need of extra health care interventions outside the MBP pay extra co-payment.**

### Table 15: Co-payment of TZS 30,000 for financing the MBP interventions

| MBP population seeking health care | Exempted from co-payment** | Co-payment payers | Premium level (TZS) | Total co-payment revenue (TZS, billion) | MBP Cost (TZS, billion) | Govt financing of MBP | Co-payment as % of total MBP costs | Govt financing of MBP as % total MBP costs |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 = (1-2) | 4 | 5 = (3*4) | 6 | 7 = (6-5) | 8 = (5/6) | 9 = (7/6) |
| 11,250,000 | 7,482,000 | 3,768,000 | 30,000 | 113 | 635 | 522 | 17.8% | 82.2% |
| 13,500,000 | 7,482,000 | 6,018,000 | 30,000 | 181 | 762 | 581 | 23.8% | 76.2% |
| 18,000,000 | 7,482,000 | 10,518,000 | 30,000 | 316 | 1,016 | 700 | 31.1% | 68.9% |

Under Option D, the population that is capable of paying for health care services is asked to pay co-payment of TZS 30,000. This raises TZS 113-316 billion or 17.8—31.1% of the total cost of financing the MBP. As the paper on inclusion of the poor observes, this level of premium is the cut-off point above which co-payment above TZS 30,000 begins to cause challenges in payment. As such, under current cost structure, this level of premium is considered reasonable and the burden of financing the MBP by the Government is reduced to 68.9% - 81.2% level of financing. If avenues of taking advantage of reformed insurance schemes are explored, especially CHF/TIKA, NHIF, NSSF/SHIB, as well as public-private partnerships in health financing; scaling up the MBP to universal coverage is closer to recent budget execution and more likely to be sustainable with this rate of premium co-payment. However, regular review of the premium rate has to be undertaken to take into account price changes – especially increasing costs of labour, drugs and medical equipment and other

health system price changes that can exert undue pressure on the sustainability of the MBP financing.

**Option E: Flat rate of TZS 40,000 for co-payment payers, the poor and vulnerable are exempted and their cost defrayed by government. Beneficiary in need of extra health care interventions outside the MBP pay extra co-payment.**

### Table 16: Co-payment of TZS 40,000 for financing the MBP interventions

| MBP population seeking health care | Exempted from co-payment* | Co-payment payers | Premium level (TZS) | Total co-payment revenue (TZS, billion) | MBP Cost (TZS, billion) | Govt financing of MBP | Co-payment as % of total MBP costs | Govt financing of MBP as % total MBP costs |
|---|---|---|---|---|---|---|---|---|
| **1** | 2 | 3 = (1-2) | 4 | 5 = (3*4) | 6 | 7 = (6-5) | 8 = (5/6) | 9 = (7/6) |
| 11,250,000 | 7,482,000 | 3,768,000 | 40,000 | 151 | 635 | 484 | 23.8% | 76.2% |
| 13,500,000 | 7,482,000 | 6,018,000 | 40,000 | 241 | 762 | 521 | 31.6% | 68.4% |
| 18,000,000 | 7,482,000 | 10,518,000 | 40,000 | 421 | 1,016 | 595 | 41.4% | 58.6% |

Under Option E, the population that is capable of paying for health care services is asked to pay co-payment of TZS 40,000. This raises TZS 151-421 billion or 23.8—41.4% of the total cost of financing the MBP. As the paper on Inclusion of the poor observes, there are challenges in paying the TZS 40,000 co-payment, although, this level of premium reduces the burden of financing the MBP by the Government to 58.6-76.2% level of financing. Premium rate levels that are too high are likely to reduce MBP coverage and should be avoided.

**Option F: All MBP beneficiaries pay a differentiated level of premium. The poor and vulnerable pay low premium rates, say TZS 10,000 and others TZS 30,000. Beneficiary in need of extra health care interventions outside this MBP payment structure pay extra co-payment.**

### Table 17: All MBP pay differentiated co-payment for financing the MBP interventions

| MBP population seeking health care | No. of the poor & vulnerable | Co-payment payers | Premium level: pop under colm 2 (TZS) | Premium level (TZS) | Total co-payment revenue (TZS, billion) | MBP Cost (TZS, billion) | Govt financing of MBP | Co-payment as % of total MBP costs | Govt financing of MBP as % total MBP costs |
|---|---|---|---|---|---|---|---|---|---|
| **1** | 2 | 3 = (1-2) | 4 | 5 | 6 = (2*4)+ (3*5) | 7 | 8 = (6-5) | 9 = (6/7) | 10 = (8/7) |
| 11,250,000 | 7,482,000 | 3,768,000 | 10,000 | 30,000 | 188 | 635 | 447 | 30% | 70% |
| 13,500,000 | 7,482,000 | 6,018,000 | 10,000 | 30,000 | 255 | 762 | 507 | 33% | 67% |
| 18,000,000 | 7,482,000 | 10,518,000 | 10,000 | 30,000 | 390 | 1,016 | 626 | 38% | 62% |

The merit of this option should be explored because apart from generating extra revenue to fund the MBP, it instils beneficiary ownership and it gives the poor and vulnerable groups a voice to demand better health care services. Co-payment defrays 30-38% of the MBP funding, thus reducing government funding to 62-70% of the required financing. Scaling up the MBP to universal coverage under low affordable differentiated premiums is likely to be

sustainable if also this is complemented with efforts to foster public-private partnerships in health financing, improved insurance schemes, especially CHF/TIKA, NHIF, NSSF/SHIB, and other supportive financial and administrative management institutional reforms. But administrative procedures and there expenses of such an option would need to be assessed.

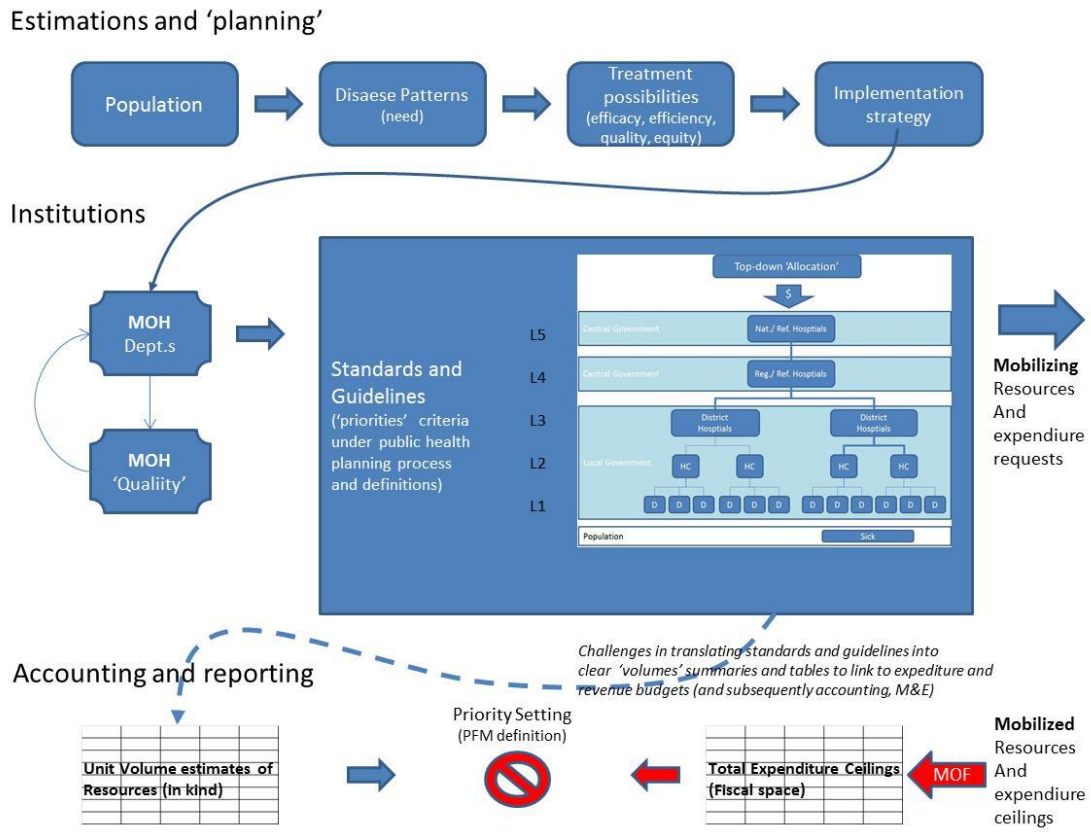
## 4.6 Limits to realizing MBP priorities and co-payments

The key assumption so far is that the essential health care package priorities are fully funded through the public budget (or compulsory financing mechanisms). However, it should be clear that funding gaps can occur. Given also the recent history of health financing in Tanzania, it should be clear that such resource gaps have been real and continuous over a number of years.

### 4.6.1 Funding Gaps and the Emergence of Co-Payments

Current priority-setting arrangements for the establishment of the MBP follow a traditional international public health planning approaches. This process is described above and also illustrated in Figure 5. Within this framework, public authorities plan and prioritize goods and services to be supplied through the public health service delivery network on the basis of a series of estimations and planning criteria. Within this approach 'financing' is described as 'mobilizing resources' (WHO 2007).

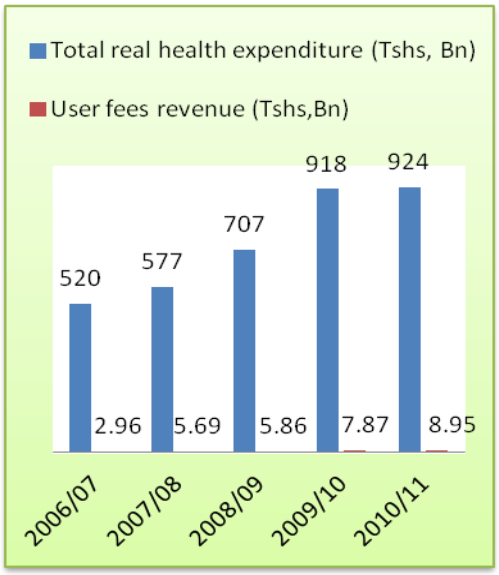
**Figure 5: Traditional Public Health Planning and Priority Setting Approach ('historical budgeting')**



The Public Health definitions of finance do not, however, also fully comply to those used in Public Finance Management and public (annual or multi-year) budgeting procedures, under which Ministries of Finance provide sector ministries with given 'expenditure frameworks' on the basis of (estimations of) 'mobilized resources' (with expectations frameworks for long-term sound macro-economic and public finance management). Clearly a 'funding (and understanding) gap' can emerge between these two perspectives. Formal and informal user-charges and co-payments are then the primary financial instruments to close the imbalances. If such fees persist, hence real financial risk as a result of health care services become manifest, and given appropriate (labour market) market conditions, various risk-pooling or insurance initiatives are likely to form a secondary response (see other papers in this series). Non-financial instruments also exist and might include: additional waiting times, non-availability of medical goods and/or services, quality and other health system 'performance' (i.e. output and outcome related) issues.

As both groups of symptoms of strain are apparent, this might also indicate limits to current approaches and institutional arrangements for planning and priority setting but these are beyond the scope of currently requested analysis.

**Figure 6: Health user fees vs total government health spending (Tshs, Bn)**




Authors based on MoHSW

### 4.6.2 User-fees, Waivers and Exemptions

User fees are charges for health care at the point of use. In Tanzania, user fees were intended to: improve efficiency in the health sector by moderating demand, containing cost, and mobilizing more funds for health care than existing sources provided. The introduction of user charges can raise controversy with common claims being that user fees reinforce a poverty trap by decreasing service utilization by the poor, which can have a considerable health and livelihood impact.

In addition, opponents of user charges argue that they do not improve the quality of care and cause medical services to be priced higher than those charged by private healthcare providers. This view relies on studies indicating drastic and sustained decreases in health care service utilization following the introduction of user fees in Zambia, Cambodia, Rwanda and Uganda in the early 1990's. Waddinton and Enymayew (1990) and Mwabu et al. (1995) found that introduction of charges for medical services decreased demand in the range of 15-45% in most developing nations. Audibert and Mathonnat (2000) and Chawla et al. (2000), as well as Ha et al. (2002) confirm that user fees divert those who cannot afford the medical service to other sources of health care or away from the health care system in general.

Furthermore, the revenue to the public delivery system from *formal* user fees is very low, about 0.9% of total health spending in Tanzania (Figure 4), although at the community level these can be significant. Clearly private sector changes and 'dual practice' account for substantially more expenditure by patients and hence income to medical facilities at the operating level. Proponents of user fees, however, argue that these can provide flexible funding at the facility level, thus providing more incentives for enrolment in pre-payment schemes. This assertion is weakened by existence of waivers and exemptions, some of which cannot be justified, and which can also bring additional and complex (hence expensive) administrative requirements. On balance, however, user charges are widely considered to be regressive especially to the poor and vulnerable groups, in the absence of effective waiver and exemption procedures.

Implementation of the public user-fee and waiver/exemption system is guided by the MoHSW's "Cost-sharing guidelines" (MoHSW 2006) The guidelines contain a description of roles and responsibilities of institutions and staff involved in the collection of user-fees, of the processes of fund collection, handling, and accounting, and a list of prices of the services. The guidelines also contain the exemption and waiver procedures. Statutory exemptions are granted for pregnancy related services, treatment of chronic diseases including HIV/AIDS and TB, children under 5 years of age (U5s), elderly people over 60 years of age, and people with disabilities (physical and mental). These conditions are typically identified by health staff at the facility through ID cards and/or MCH cards (for U5s), or through the diagnosis and prescribed treatment itself. Waivers are given to "those unable to pay" (the very poor), who are to be identified through the communities and issued a waiver through their Council. Councils may issue exemption letters or give CHF membership to poor households (MoHSW 2006) councils are expected to pay for such CHF memberships.

Private facilities charge user-fees and are free to set own prices and implement own exemption and waiver systems. However, faith-based health facilities often subsidize free treatment of poor patients by charging higher fees to those able to pay. An exception to this is made when private (mostly faith-based) facilities enter into Service Agreements with Councils for the provision of priority health interventions. Under such circumstances, the Council makes direct payments to the facility, and in return the facility accepts free treatment of patients for the contracted services, typically MCH services.

There are several challenges related to implementation of waivers and exemptions, which can be summarized as follows:

- Exemption schemes are implemented in informal and ad hoc ways, thus reducing their validity;
- Exemptions based on the ability to pay are extremely uncommon in practice and not easy to implement rationally;
- Decisions to exempt are often left to the discretion of local service providers, thus introducing an element of rent seeking in the system;
- Absence of specialized staff hampers the effectiveness of the waiver procedure;

- There can be a negative attitude of health staff towards policies for protecting the poor as waivers mean less income and more work;
- The distribution of cards for a waiver or exemption is often cumbersome and lead to high administrative costs, delay and retention of cards. Moreover, some remote communities are not aware of the waiver/exemption procedures.
- Financial incentives or staff performance are linked to successfully collecting fees; the characteristics of the poor are generally not defined well and understood by implementing officials.

### 4.6.3 Adjustment of co-payments over time

Due to price changes over time associated with price increases especially for labour, drugs, medical equipment, changes in technology and other health systems service provision; regular review of the co-payment premium rates should be undertaken, preferably once after every two years. The premium rate adjustment should be based on a health care price index which can be developed by the Ministry of Health and implemented by the National Bureau of Statistics (NBS) during collection of data for determining the country's Consumer Price Index (CPI) under health data analysis (CPI Division 6). More specifically, the health care price index could include the components shown under Table 18.

**Table 18: Components of a simple Health Care Price Index (HCPI)**

| Component | Relative importance |
|---|---|
| Medical care services – especially labor costs associated with salary increases of health workers | 35% |
| Health provider services, including hospitals and health insurance | 25% |
| Drugs and related medical supplies | 30% |
| Other health related interventions | 10% |
| **Total** | 100% |

Once the MoHSW develops and approves the health care price index, the NBS can be asked to compile the index on an annual basis as part of the CPI compilation. The index can then be used to adjust the co-payment premium rate, taking into account affordability by the poor and vulnerable groups, who in most cases have to be subsidized by the government.

# 5.0 MOVING TOWARDS UNIVERSAL HEALTH COVERAGE (UHC)

This section does not constitute a blueprint for Tanzania's UHC but rather provides a menu of several issues for consideration by an 'Expert Group' or 'Task Force' that will be established by the Government to develop the country's plan and strategy to move towards UHC.

The government's goal of the national health financing strategy is to provide universal coverage and social health protection to the population. A prime objective is to improve access to services by removing barriers to care— especially for poor and vulnerable people and those in rural and remote areas—and to ensure that sufficient resources exist to enable health care providers to deliver a basic package of high-quality health care services. This section provides some few issues for consideration in the country's efforts to move towards universal health coverage.

## 5.1 Background

Since the 1970s, there has been a near consensus among the public health community that Universal Health Coverage (UHC) should be a fundamental goal of each country. At the conference in Alma Ata and, subsequently in Ottawa, commitments were made to pursue equitable systems of healthcare, which would provide access to all for point-of-entry healthcare services, so that no matter what a person's ailment, there is a person or group who can coordinate services. International institutions—such as the World Health Organization (WHO), the World Bank, the International Labour Organization (ILO) and the International Monetary Fund (IMF)—support universal coverage as a policy objective. Tanzania is among the countries that aspire to move towards UHC.

### *5.1.1 What is Universal Health Coverage?*

Universal Health Coverage is defined as the situation where all people are able to use the quality health services that they need and do not suffer financial hardship paying for them. It brings together two inter-related concepts of coverage. In public health, the term embodies the principle that all people should be able to use a range of quality essential health services, including the appropriate mix of prevention, promotion, treatment, rehabilitation and palliative care (see WHO World Health Report 2010). On the other hand, the term might also be used to describe whether people are protected from severe financial hardship as a consequence of paying out-of-pocket for health services under insurance. These concepts of UHC capture a common set of values: equity, shared responsibility, and quality healthcare delivery irrespective of ability to pay. Universal Coverage therefore focuses primarily on the achievement of a wide network of health providers and health institutions so that the vast majority of the population can have access to quality health services.

### *5.1.2 Why should Tanzania strive to move towards Universal Health Coverage?*

UHC is desirable because it improves health outcomes through greater access to health services and provides people with financial protection against the costs associated with illness. UHC is not only a health but a development issue. Coverage with needed services improves or maintains health, allowing people to earn incomes and children to learn – empowering them with a means to escape from poverty. At the same time, financial coverage prevents people from being pushed into poverty because of out-of-pocket payments for health. UHC is also a practical expression of social cohesion with concerns for ensuring that everyone, including the poor and vulnerable groups, can realize their right to health.

*Movement towards Universal Health Coverage is a journey*

Moving towards UHC is a process of progressive realization. It is about making progress on several fronts for all people: the available range of services (consisting of the medicines, medical products, health workers, infrastructure and information); the proportion of the costs of those services covered; and the proportion of the population covered. UHC cannot be achieved in a single leap. Making progress requires investment in the foundations of universality—the institutions, systems and processes that hold health systems together. Therefore, UHC is a destination because of several reasons, including:

- Introduction of new technologies,
- Increasing costs,
- Increasing population or changing in population age structure, and
- Changing disease patterns

The three fundamental health financing challenges for achieving Universal Health Coverage are:

- Raising sufficient funds for health services;
- Ensuring/maintaining financial risk protection – i.e. ensure that financial barriers do not prevent people using needed health services nor lead to financial ruin when using them;
- Minimizing inefficiency and inequity in using resources, and to assuring transparency and accountability.

In this regard, moving towards UHC under limited resources (financial, human, health infrastructure, etc.), necessitates making choices:

- Between goals of UHC (including financial protection against catastrophic medical expenses; health; and personal and national overall wellbeing);
- Between dimensions of UHC (who is covered; what is covered; what share of costs are covered); and
- Trade-offs within and between each of these.

## 5.2 Common core principles of moving towards UHC

The three main principles for moving towards universal coverage are:

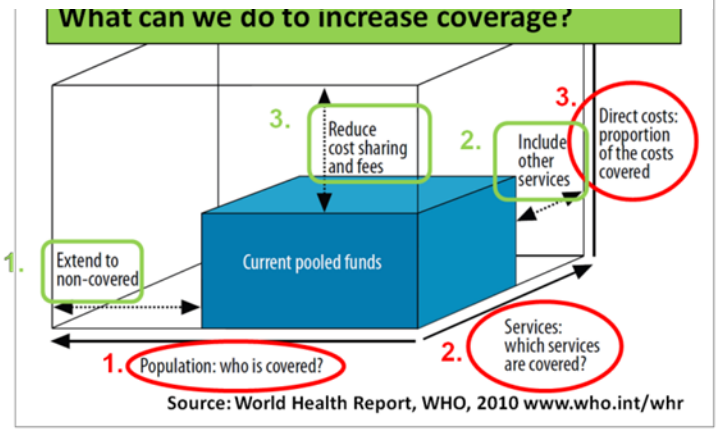
- Reduced Out-of-Pocket Spending: In Tanzania over 14 million people or 32% pay out-of-pocket for health services (NHA 2009/10). Globally, over three billion people, many of them in the poorest half of the world's population, pay out of pocket for health services, often forgoing necessary care due to their inability to pay. UHC reforms aim to reduce direct payments (or out-of-pocket spending), the monetary exchange that happens between a provider and an individual seeking medical care. Out-of-pocket payments can be charged by any provider – government, non-government, faith-based NGO, private, or other – and can take the form of co-payments, deductibles, coinsurance, and even unofficial payments or "under the table" payments (which should be discouraged and eliminated). Moving towards UHC implies reducing these costs to enable the poor and vulnerable groups' access to medical care.

- Prepayment: To facilitate a reduction in out-of-pocket spending, UHC reforms aim to facilitate prepayment for care by those who can afford to contribute. This means that people will not have to pay for health care at the point of service. Health care services are prepaid by a mix of general taxes, payroll taxes, member contributions or premiums, and donor support. There is considerable variation in terms of how prepayment will be organized and this aspect will be informed by the Insurance market and Community Health Fund studies.

- Risk Pooling: To facilitate prepayment, UHC reforms aim to pool together financial risk so that the financial cost incurred when an individual seeks health care services is spread across the entire pool of people who are part of the system. Some countries have one national pool while others utilize multiple pools for sub-populations. However, the larger and more integrated the pool can be, the more easily it can spread financial risk and limit unexpected or extreme fluctuations in payments.

Ultimately, the movement towards UHC requires answering three key questions as shown on the diagram below (WHO, 2010): (i) Population: who is covered? (ii) Services: which services are covered, and (iii) financial protection: what do people have to pay out-of-pocket? The health financing strategy has to provide answers to these questions in the move towards UHC (Figure 7).

Figure 7: WHO definition of the dimension of UHC (WHO 2010)



The WHO “Coverage Cube” was introduced as a tool that may help to visualize the WHO’s definition of a vision of a Health Financing Strategy. Total health expenditure (THE) is shown as an empty cube, with all pre-paid (pooled) funds being pictured as smaller cubes inside the total health spending cube. Examples for pre- paid funds are budgets, Social Health Insurances (SHIs), Community Based Health Insurances (CBHIs) such as the Community Health Fund (CHF) and others. The space not filled by pre-payment cubes is out-of-pocket expenditure (OOP). The objective of health financing reform that aim at achieving universal coverage is to minimize OOP. With its three dimensions, the cube helps to realize that there are three ways to reduce OOP. First, through answering the question ‘who is covered?’ that is, the population to be covered. Second, answering the question ‘which services are covered? Third, what proportion of the costs covered? Each of these options is shown along one axis of the cube. The MBP health care proposed in this paper tries to suggest which basic services should be covered, at what cost and how the MBP will be financed to move towards Universal Health Coverage.

# 6.0 EXPERIENCE WITH MBP IN EASTERN AND SOUTHERN AFRICA

Most countries of Eastern and Southern Africa continue to use the WHO definition and approach to defining MBP while the name for it can change over time. According to WHO, a minimum package is a standard package of (essential) public health and medical goods and services available to entire population for a given period. Obligations in term of: taxes, pre-paid insurance and/or co-payments are less clear. In Annex 2, a summary table of key MBP features across the region is presented.

In terms of interventions packages, most countries offer a limited set of preventive and curative health services. Example: Ethiopia offers 5 interventions: (i) Family health, (ii) Communicable diseases, (iii) Basic curative care and treatment of major chronic conditions, (iv) Hygiene and environmental health, (v) Health education and communication. Zambia offers four interventions: (i) Outpatient care, (ii) Hospitalization inpatient care, (iii) Maternal and child benefits, and (iv) Pharmaceuticals from a list of approved drugs. Kenya's essential package is organised in 6 levels: Level 1: community, Level 2: dispensaries and clinics, Level 3: health centres, maternities and nursing homes, Level 4: primary hospitals, Level 5: Secondary hospitals, and Level 6: Tertiary hospitals. Services that can be provided at each level are separately defined. The MBP is largely handled in level 2 and 3 with activities including preventive and promotive care and services and some selective curative care. In Rwanda, there are two packages: The Minimum Package of Activities (MPA) which covers drugs, family planning, minor surgery operations; and the Complementary Package of Activities (CPA) which covers limited number of services at district and referral/national hospitals. By comparison the Tanzanian (NEHCIP-Tz) benefits package of essential health care services covers 5 disease areas implemented through 5 levels of a public health system (See below).

Most countries use multiple providers to supply the MBP while historically public health care delivery networks and systems remain the predominant suppliers. Accredited private not-for-profit and private-for-profit organisations and other accredited NGOs and CBOs are contracted in some instances. The precise proportions of such contracting vary considerably both across and within countries in the region. More research would be need to establish more detailed information but is beyond the scope of this Working Paper.

The cost of providing a MBP varies substantially depending largely on interventions in the package and coverage levels. However, on average, WHO has estimated that delivery of an essential package can cost about US$ 34 per capita per year. Estimates by the Commission on Macroeconomics put the cost at US$ 38 per capita per year. Another estimate by High Level Task Force (2009) arrived at US$ 54 per capita per year. Uganda estimated cost of her essential package is US$ 41.2 per capita per year in 2008/09, rising to US$ 47.9 per capita in 2011/12. Nigeria provides a MBP that was costed at US$ 16 per capita per year. Malawi's essential package for 2004-2010 was costed at US$ 763 million or US$ 58.7 per capita per

year. South Africa has two MBP packages: Core inpatient package costed at R502 per enrolee or US$ 50.2 per enrolee per year; and Outpatient package costed at R183 or US$18.3 – which translates into R685 or US$68.5 per person per year.

To finance these benefits most African countries draw on a variety of sources, including: domestic tax revenue, donor support, private-for-profit insurance schemes, private not-for-profit funding, other NGO and CBO involvements, and household out-of-pocket payments. For example, in Uganda the essential packages are funded: Government 15%; donors 35%, households out-of-pocket 49%, and other 1%. In South Africa the packages are funded through a tax-financed public hospital system. Free access to the system for the poor and vulnerable is granted on the basis of a means test at point of entry. About 18-23% of the population has private health insurance.

Throughout the region the use of hypothecated or 'ear-marked' sources from general tax revenues are common. In Zambia beneficiaries of the essential package pay a flat fee that is subsidized by the government. In Gabon, the government has established a Compulsory Health Insurance Levy to fund its essential package. The main sources of funding are: (i) mobile phone companies must pay 10% of their income to the health fund; and (ii) Foreign exchange transactions are taxed at 1.5% for the fund. In Ghana, part of the funding for the essential package comes from an additional 2.5% charge on value-added tax (VAT). Zimbabwe has established a dedicated tax for a health fund whose source of revenue is additional excise tax on tobacco and alcohol. Kenya and Ethiopia uses a combination of government tax revenue, donor support, private insurance and co-payments by beneficiaries. While each of these measures moderates short term demands revenues to the sector as a whole clearly remain constrained by general fiscal space within the country concerned. It should also be noted that such taxes also are a double edged sword in that they also do not link financing to actual performance and/or (popular) perceptions of performance by health care providers.

There are several constraints and challenges facing African countries that are implementing basic health care packages. These can be summarized as follows:

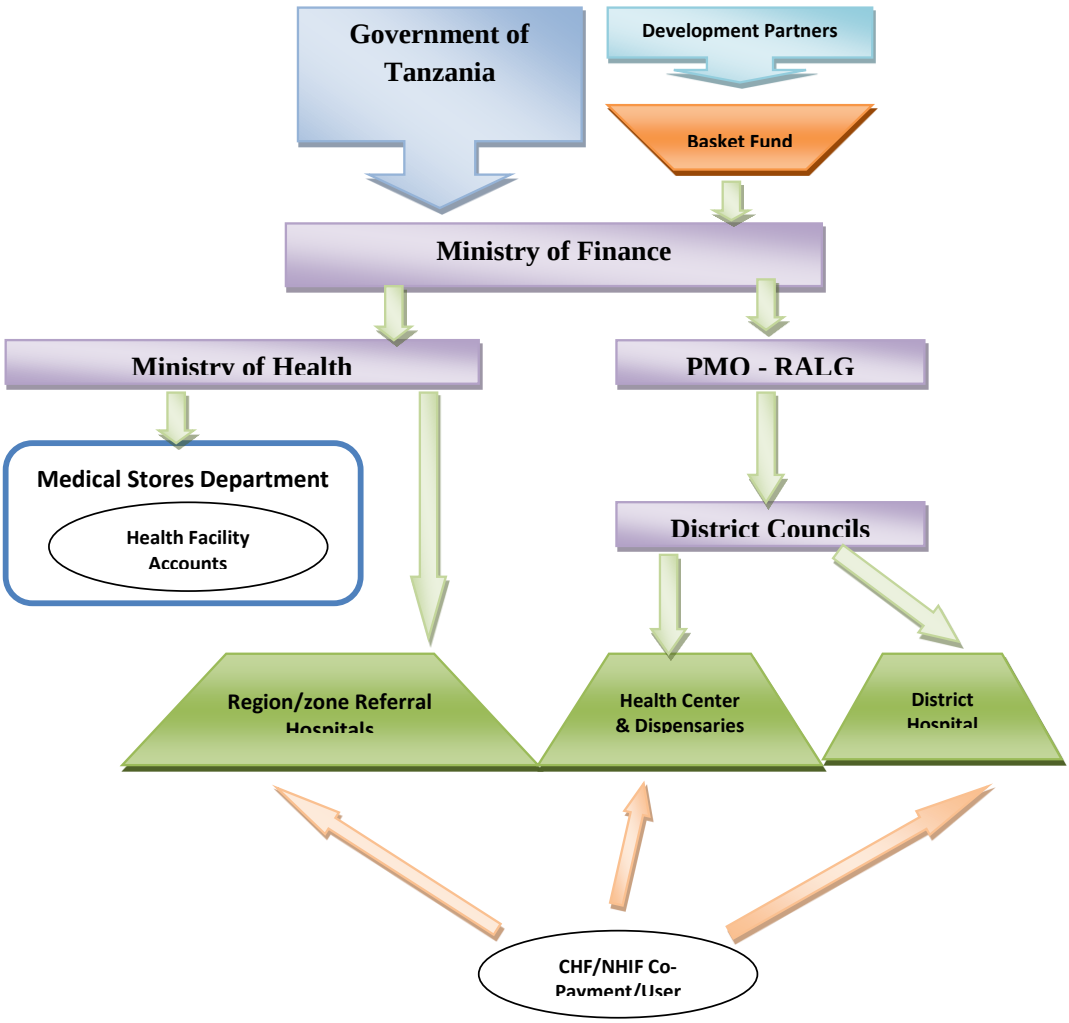
- Financial constraints. Budgetary constraints, particularly low resource allocation to the health sector, unsustainable reliance on external assistance and inadequate involvement of private providers all hinder efficient and sustained implementation of health care packages.
- Widespread shortage of health staff at all levels and public sector wage rates (labour pricing gaps) between public and private sector precluding adequate coverage and provision of quality health services
- Continued focus on universal as opposed to targeted approaches to inclusion;
- Inadequate systems for implementation of the basic packages, including:
  - Out-dated, non-relevant to context, over-lapping and inconsistent, clinical or quality assurance protocols, including for referrals;

- Legacies of extensive and detailed input and process protocols (‘standards’ and ‘guidelines’) restricting supply side innovation by both: expanding oversight burdens and rigidities, and; reducing output and production focus hence efficiency. Both vastly increase pressure on highly constrained fiscal space;
- Inadequate contracting of providers to provide the essential package or clear and feasible approaches, institutional arrangements and capacities or (output orientated) criteria (and payment and administrative mechanisms) for doing so;
- Lack of creation of alternative supportive regulation and accreditation of individual facilities (for example, flexible quality accreditation arrangements independent of ownership or owner motive criteria); and
- Inadequate and (often indirectly still) highly centralized regulatory structures even within highly populated and diverse countries, weak regulatory environment and inconsistencies in the delegation/decentralization of ‘responsibilities’ and ‘authorities’ within the health systems’ structure.

## 7.0 INSTITUTIONAL STRUCTURE FOR IMPLEMENTATION OF THE MBP AND SUSTAINABLE HEALTH CARE DELIVERY

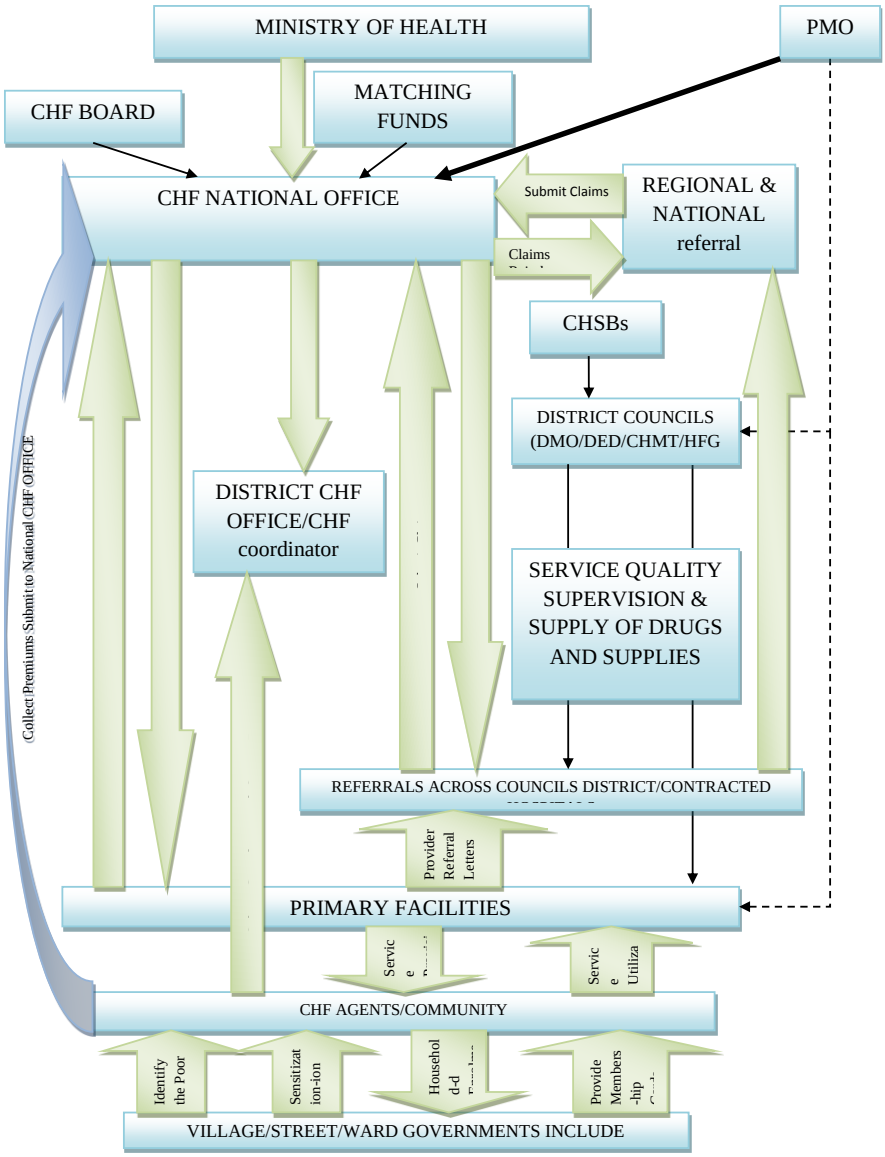
The country has a well-established public and private health care delivery institutional structure and management. The MBP of basic health services to be provided at each level of care within the Health System include the requisite service standards, the cadre of staff responsible for various activities, the targets to be achieved in each area of work, the indicators required in measuring tangible progress/outputs, and the human and material resources required to implement these services. The health services at the dispensary level are delivered through both out-patient and outreach services. The scope of services provided at the health centre level is similar in scope to those of the dispensary level but are more comprehensive. In addition, the health centre level has admission facilities for observation. The minimum package of services to expect from the district hospital is also defined. It will therefore be possible for citizens to know what services to expect from the district hospitals – the key referral point within the district council.

**Figure 8: The flow of MBP funds in the public health system**



A sound management system is required at all level necessary to efficiently deliver the packages of services, which include drug supply system, financial management system, and health management information system, human resource management system with greater emphasis on performance management, infection control and waste management systems. Therefore estimated resources required to deliver the MBP discussed in the preceding section is to enable all health provision levels to have adequate staffing, supplies, equipment, infrastructure, utilities and general running and maintenance of the facilities. As far as possible, implementation of the MBP should follow government existing institutional framework and procedures (Figure 8).

**Figure 9: Evolving institutional and management framework**




Source: Adapted: CHF Option Paper (2013)

The suggested MBP institutional and management framework is shown above in Figures 8 and 9. Pooling of MBP resources is assumed to take place at the national level as a so-called 'single payer'. Further thinking is needed to ensure whatever institutional and management

arrangement is adopted, it will facilitate efficient and cost effective delivery of the MBP in terms of offering quality health care services. However, it is envisaged that issues related to copayments, benefits package, standards guidelines, quality standards, contract processes, and payment mechanisms for the MBP will all be decided by the CHF Board. Furthermore, CHF will have zonal, regional and district branch offices to handle beneficiary questions and requests as well as respond to any issues related to the delivery of quality services in their respective areas.

As discussed earlier, it is anticipated that the MBP will be implemented through an insurance system (CHF/NHIF, etc). As such, there are two regulatory authorities that can be tailored to carry out regulatory functions related to the MBP. These are the Tanzania Insurance Regulatory Authority (TIRA) and the Social Security Regulatory Authority (SSRA). Depending on the structure of the MBP implementation institutional framework adopted, these authorities enactment will be reviewed and strengthened to regulate the MBP implementation structure.

# 8.0 MONITORING AND EVALUATION

As Tanzania government, through the Ministry of Health and Social Welfare (MOHSW) commits to achieving UHC and introduce policies aimed at that goal, there is a need to develop indicators to measure and monitor progress. The World Health Report 2010 outlined a conceptual framework with three broad dimensions of UHC as discussed in Section 17, namely: population coverage, service coverage, and financial coverage. Translating these dimensions through the health financing strategy, and management reforms into intended changes on the ground requires a well-functioning monitoring and evaluation (M&E) system which will provide data that will allow policies to be improved over time, and consequently strengthen their potential to achieve universal health coverage.

## 8.1 Monitoring and Evaluation Framework

The criteria for selection of UHC indicators, needs to include, among others, the following:

- A limited number of indicators providing comprehensive information that will enable policy makers to take decisions focusing on key issues,
- Data availability – make use of existing data sources and institutions,
- Data quality - ensure the data is of sufficient quality to produce meaningful, consistent, and reliable indicator estimates, and
- Data comparable at global level – need to ensure the indicators in use and results, thereof, can be compared with those of other countries.

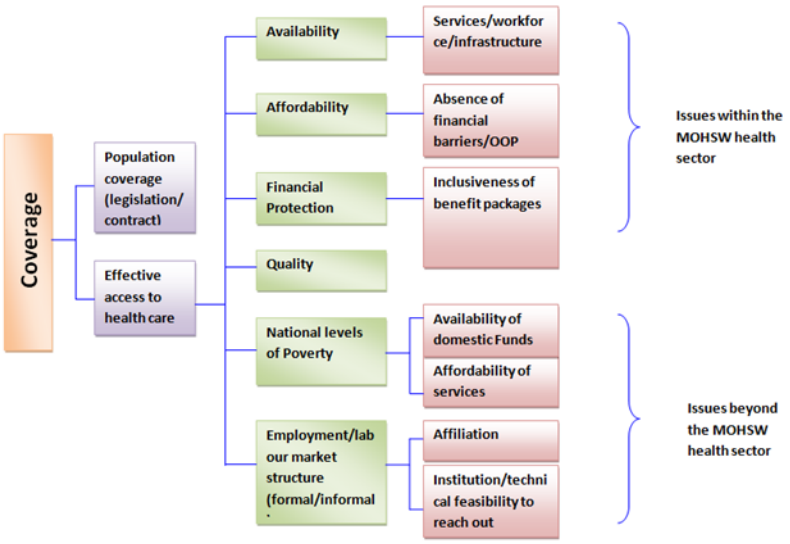
The main issues that need to be evaluated and monitored regularly, usually on an annual basis, are shown on Figure 14.

Key parameters for inclusion in monitoring and evaluation indicators therefore include:

- Coverage:
  - Population coverage (legislation/contract),
  - Effective access to health care.

- Aspects to be monitored:
  - Financial protection,
  - Availability
  - Affordability
  - Quality
  - National level poverty
  - Employment/labour market structure (formal and informal)

**Figure 11: M&E Framework**




Issues that will need to be monitored closely by the MOHSW include:

- Service workforce infrastructure,
- Absence of financial barriers/Out-of-pocket payments (OOP), and
- Inclusiveness of benefit packages – especially with regards to the poor and vulnerable groups.

Issues that may be beyond the MOHSW include:

- The availability of domestic resources and health services to sustainably finance the MBP/UHC package.

## 8.2 Monitoring and Evaluation Indicators

The following Table provides some indicators for M&E that needs to be collected annually to measure progress towards achieving universal health coverage.

**Table 17: Indicators for M&E**

| Indicator | Source | Data source institution/report |
|---|---|---|
| 1. Financial protection | | |
| 1. Percentage of population with (self-reported) insurance coverage | Captured in some expenditure surveys, some DHS | Tanzania Insurance Regulatory Authority (TIRA) Annual Report; National Bureau of Statistics (NBS): Tanzania Demographic and Health Survey (TDHS) |
| 2. Out-of-pocket expenditures on health as a percentage of total health expenditures | WHO database, NHA reports | MOHSW National Health Accounts (NHA) reports |
| 3. Out-of-pocket expenditures on health as a percentage of total private health expenditures | WHO database, NHA reports | MOHSW NHA reports |

| Indicator | Source | Data source institution/report |
|---|---|---|
| 4. Percentage of population whose health expenditure exceeds 10% of total expenditures | Estimations using household expenditure surveys | NBS: Tanzania National Panel Survey (TNPS); Household Budget Survey |
| 5. Percentage of population whose health expenditure exceeds 40% of non-food expenditures | Estimations using household expenditure surveys | NBS: Household Budget Survey; TNPS |
| 6. Mean positive overshoot: Average amount by which out-of-pocket spending exceeds threshold, for those with catastrophic payments | Estimations using household expenditure surveys | NBS: Household Budget Survey; TNPS |
| 7. Percentage of population whose health expenditures put them below the poverty line | Estimations using household expenditure surveys | REPOA: Poverty and human Development Report (PHDR); NBS: Household Survey; TNPS |
| 8. Average deficit by which consumption falls below poverty line | Estimations using household expenditure surveys | REPOA: Poverty and human Development Report (PHDR); NBS: Household Survey; TNPS |
| 9. Per capita health spending | Public Expenditure Review (PER) | MOHSW: PER |
| 2. Service coverage | | |
| Service utilization (Percentage of relevant population) | | |
| 1. Births delivered in a health facility | DHS | MOHSW/NBS: TDHS |
| 2. Births assisted by a skilled provider | DHS; UNICEF/UNFPA; WHO database | MOHSW/NBS: TDHS |
| 3. Women receiving ANC from a skilled provider | DHS; UN MDGs Indicators; WHO, UNICEF | MOHSW/NBS: TDHS |
| 4. Married women in reproductive age using modern FP method | DHS; World Contraceptive Use 2011 (United Nations, 2011) | MOHSW/NBS: TDHS; TNPS |
| 5. Family Planning Needs Satisfied | DHS | MOHSW/NBS: TDHS; TNPS |
| 6. Received all basic vaccines | DHS; WHO database | MOHSW/NBS: TDHS; TNPS |
| 7. Received Measles vaccine | DHS; WHO database, UNICEF | MOHSW/NBS: TDHS; TNPS |
| 8. Received 3 doses of DPT vaccine | DHS; WHO database; UNICEF | MOHSW/NBS: TDHS; TNPS |
| 9. Received BCG vaccine | DHS; WHO database | MOHSW/NBS: TDHS; TNPS |
| 10. Received ORT and continued feeding for diarrhea treatment | DHS; MICS; UNICEF | MOHSW/NBS: TDHS; TNPS |
| 11. Sought Treatment for ARI | DHS; MICS | NBS: HIV and AIDS and Malaria Indicator Survey (THMIS) |
| 12. Children under 5 with fever who received anti-malarial drugs | DHS; WHO database | NBS: THMIS); TDHS |
| 13. Population with advanced HIV and access to ART drugs | UN MDGs Indicators | NBS: THMIS; TDHS |
| Other services/tracer indicators | | |
| 14. Households with at least one mosquito net | DHS for select countries | NBS: THMIS |
| 15. Children under 5 sleeping under ITNs | DHS; WHO database; for select countries | NBS: NBS: THMIS |
| 16. Pregnant women sleeping under ITNs | DHS for select countries | NBS: NBS: THMIS |

## 8.3 Challenges and Limitations

The main challenges in developing a robust M&E system with credible indicators include:

- Data quality. It is essential in collecting data for MBP/UHC to ensure good quality data is used for M&E.
- Consistency and relevance – How should variations in disease burden in the country be handled? Should indicators be tailored to specific regional contexts? How can the country indicators be balanced with consistency for global benchmarking or comparability across countries?
- Priority groups vs. universality – Should indicators focus on services which predominantly benefit the poor, vulnerable or underserved groups, or should selected indicators be more "neutral"? Should health coverage for the MBP be compulsory or voluntary – the later will be very difficult to capture in a robust M&E system.
- Data constraints – To what extent should the choice of services to be measured reflect the actual (current) availability of data?
- Indicators, tracer indicators, and indexes – Should the country pursue the selection of tracer indicators or development of composite indexes? Or should a wide range of individual indicators be collected and reported?
- Measuring "effective coverage" with high-quality services may remain challenging. Effective coverage implies that provision of services is enough to achieve coverage; the services must reach those who need them, and they must be of adequate quality to result in health improvements. To date, while many quality metrics have been developed, it is still challenging to measure the quality of service provision on an aggregate level – even in high-income countries. While structural measures of quality that reflect the availability of proper infrastructure, human resources, and inputs are somewhat available (using Service Provision Assessments for instance), measuring process quality is far more difficult and resource-intensive because it often requires direct observation of service delivery. In addition, it is particularly cumbersome to link the quality of service provision with the characteristics of beneficiaries reached and the health outcomes achieved.
- Capturing the poorest and vulnerable groups: Measurement of financial protection explicitly aims to address the financial burden of health care seeking, but existing measures of financial coverage do not capture those individuals who fail to seek care because they cannot afford to do so or do not have access to credit. For instance, in measures of catastrophic expenditure, it is not possible to distinguish those with excellent financial protection from those who fail to seek care. In addition, those who are already living under the poverty line are not reflected in the numerator of impoverishment indicators, which thus tend to highlight the impact of health spending on the near-poor and middle class.
- Nominal vs. effective coverage: The WHO definition of financial coverage (proportion of costs covered by insurance or other risk pooling mechanisms) implies the ideal of affiliation to a financial protection scheme. In Tanzania such schemes exist and where they function effectively, measures of nominal affiliation (such as enrolment) may be useful. But currently it is only possible to measure effective financial coverage "post hoc" or after care have been sought for an illness. Articulating better measures of financial coverage prior to illness and care-seeking is an important area for future research and analysis.

## 9.0 MBP IMPLEMENTATION TIMEFRAME

Since the Government is committed to provision of a minimum set of health care to its citizens in an effort to move towards universal health coverage, firm foundations that includes administrative, institutional and MBP design systems and processes have to be undertaken before take-off. In this regard, it is suggested that MoHSW take lead in the processes identified on Table 18.

**Table 18: Timeframe for conceptualization and design of the introduction of MBP in Tanzania**

| Process/design activity | Key Actors | Timeframe |
|---|---|---|
| 1. Completion and approval of MBP options and its implementation framework | MoHSW, HF coordination committee, HFTWG, ISC | Dec. 31st 2013 |
| 2. Government deliberation on MBP financing mechanisms and decision to establish CHF account funded initially by 2.5% of total VAT revenue to defray service care delivery to the poor | MOHSW, POM-RALG, MoF | February 15th, 2014 |
| 3. Establishment of a National Health Insurance (NHI) team to review the MBP document and elaborate/articulate the National Health Insurance Model for implementation of the MBP towards Universal Health Coverage:<br>• policy framework and guiding principles<br>• administration<br>• patient access/rights/obligations<br>• provider autonomy and obligations<br>• remuneration mechanisms<br>• legislative provisions<br>• human resource requirements<br>• service quality issues<br>• information and monitoring requirements<br>• the financial model – inflows, outflows, etc<br>• challenges and mitigation measures | Proposed composition of the NHI team:<br>• MoHSW<br>• NHIF<br>• NSSF/SHIB<br>• CHF<br>• AAR<br>• NIC<br>• SSRA/TIRA | March 31st 2014 |
| 4. Establishment of a broad-based Steering / Advisory Committee to discuss the NHI model Working Document from 2 above and to be responsible for the preparation of a revised document which will form the basis for a MBP cabinet paper | • MoHSW<br>• Ministry of Finance<br>• POM-RALG<br>• Attorney-General's Office<br>• Health Insurance Companies | May 31st 2014 |

| | | |
|---|---|---|
| | representative<br>• Medical and Nursing Organizations representatives | |
| 5. Drafting MBP health care legislation and review by various stakeholders | • MoHSW<br>• Government Draftsman<br>• Parliamentary Committee on Health and Social Welfare<br>• Stakeholder discussions | July 31st 2014 |
| 6. Submission of MBP legislation to Parliament for discussion and approval; including amendments to the regulatory authorities SSRA/TIRA | • MoHSW<br>• Parliament | September 2014 Parliamentary seating |
| 7. MBP eHealth and other implementation modalities completed | • MoHSW<br>• PMO-RALG<br>• CHF/NHI | December 2014 |
| 8. MBP Implementation | • MoHSW<br>• PMO-RALG<br>• CHF/NHI<br>• Service providers (public & private) | January 2015 |

**Notes:**

1. Design item 1&2 could be included in the discussion for the preparation of the fiscal year 2014/15 to take into account financing of the MBP
2. Design item 3 will be informed by decisions made by ISC on the health insurance market and implementation modalities.
3. It is assumed the MoHSW health financing unit will play the overall coordination role for enhancing implementation of the MBP in close collaboration with PMO-RALG.

# REFERENCES


Audibert M, Mathonnat J. 2000. Cost recovery in Mauritania: initial lessons. Health Policy Plan: 66-75

Bitran, R. and U. Giedion. 2003 for a discussion on effective waiver/exemption mechanisms applied to less developing countries

Bultman, Jan and Anselmi Mushy (2013), 'Options for health insurance market structuring', MoHSW, June 2013

Chawla M, Ellis RP. 2000. The impact of financing and quality changes on healthcare demand in Niger. Health Policy Plan: 76-84.

DSW (2010), 'Health Spending in Tanzania: The impact of current AID structures and AID effectiveness', Country Briefing 2: October 2010.

GIZ (2012). Study on specific needs of people living with disabilities (GIZ, to be completed 2013)

Israel L. Kamuzora (2012): 'Tanzania Insurance Landscape: A diagnostic of the challenges and opportunities for micro-insurance development': Proceedings of a workshop: November 2012.

Kamuzora P. and Lucy G. (2007) 'Factors influencing implementation of the Community Health Fund in Tanzania' in Health Policy and Planning 2007;22:95–102.

Ministry of Finance (2012), 'Public Financial Management Reform Program Strategy Phase IV, 2012/13-2016/17

Ministry of Health and Social Welfare (2007), 'Primary Health Services Development Program (MMAM) 2007-2017.

Ministry of Health and Social Welfare (2010), 'Joint Health Sector Annual Review', September 2010

Ministry of Health and Social Welfare (2012), 'Tanzania Health Sector SWAP Milestones 2010/2011

Ministry of Health and Social Welfare, Cost sharing guidelines, 2006

Ministry of Health and Social Welfare, Health Sector Strategic Plan III, June 2009-June 2015

MOHSW (2000). National Essential Health Interventions Package/NEHCIP-Tz (MOHSW 2000 / 2013

MOHSW (2011). Health Sector PER – various editions.

MOHSW (2011). National Health Accounts 2009/10.

MOHSW (2011). Tanzania Health Systems Assessment. MOHSW with HS2020, Dar es Salam.

MOHSW 2010. The Health Sector Performance Profile 2010;

MOHSW 2013. The Health Sector Performance Profile 2011/12;

MOHSW 2012. Service Availability and Readiness Assessment (SARA 2012)

MOHSW (2012) 'Report of a Cost Study of HIV Treatment Programs in Tanzania, 2007-2008, Dar es Salaam, February 2012

Mtei GJ, Mulligan M, Ally N, Palmer A: Mills (2007): An Assessment of the Health Financing System in Tanzania. Dar es Salaam: Ifakara Health Institute , Dar es Salaam

National Bureau of Statistics (NBS) [Tanzania]. 2009. National accounts of Tanzania Mainland, 2009. Dar es Salaam, Tanzania: NBS.

National Bureau of Statistics (NBS) [Tanzania]. 2010. Population projections, 2010. Dar es Salaam, Tanzania: NBS.

National Health Insurance Fund (NHIF) [Tanzania]. 2010. The current status of NHIF and Community Health Fund (CHF) and prospects for the coming five years. Paper presented by the NHIF Director General on 6-8 September 2010 at the Technical Joint Annual Health Sector Review (unpublished).

National Health Insurance Fund (NHIF) Fact Sheet 2012

National Health Services Costing Study Report (GIZ 2013)

NBS/USAID (2012). Service Provision Assessment (SPA).

Preker A., Harding A., Travis P. Make or buy" decisions in the production of health care goods and services: new insights from institutional economics and organizational theory. Bulletin of the World Health Organization 2000: 78 (6); 779-790.

SHIELD reports (IHI, various years)

Tengs TO, Adams ME, Pliskin JS, Safran DG, Siegel JE, Weinstein MC, Graham JD. Five-hundred life-saving interventions and their cost-effectiveness. Risk Anal. 1995 Jun;15(3):369-90.

TWG HF (2012).(Draft) Health Financing System Analysis (TWG HF 2012)

United Republic of Tanzania (2009). ‘New Insurance Act 2009’. Dar es Salaam.

United Republic of Tanzania (2010). ‘Tanzania Demographic and Health Survey 2010’ Dar es Salaam.

USAID (2013). Strategic Review of the National Supply Chain for Health Commodities.

Vice-President’s Office [Tanzania] (2005). National Strategy for Growth and Reduction of Poverty (NSGRP). Dar es Salaam, Tanzania: Vice-President’s Office.

WHO (2000), ‘The World Health Report: Health Systems Financing: the path to universal coverage’, Geneva, January 2000.

WHO (2007). Everybody’s business — strengthening health systems to improve health outcomes. WHO’s framework for action. Geneva: World Health Organization.

WHO (2008). Essential Health Packages: What are they for? What do they change? WHO Service Delivery Seminar Series. (draft) Technical Brief No. 2, 3 July 2008. Geneva: World Health Organization.

WHO (2008). Essential Health Packages: What are they? What do they change? (WHO Technical Brief 2008)

WHO (Various). World Health Reports 2010, 2013.

WHO et al (Various). European Observatory publications on insurance and benefits package ; HITs on selected countries

World Bank (2006). Priorities in Health. World Bank, Washington DC.

World Bank (2011). Making Health Financing Work for the Poor. World Bank, Washington DC.

World Bank (2012). Service Delivery Indicators Report (SDI). World Bank, Washington DC.

# ANNEXES

## Annex 1: Summary of existing main insurance packages in Tanzania

| Source | Revenue collection | Pooling | Purchasing | Benefit package | Achievements | Constraints/challenges |
|---|---|---|---|---|---|---|
| NHIF | ▪ Cover under NHIF is compulsory for all public servants. Covers private people as well.<br>▪ Premium contribution is 6% of employee's salary equally shared between the employer and the employee,<br>▪ Contributions are automatically deducted from the payroll and submitted to NHIF. | ▪ NHIF maintains a single pool and covers public employees together with their dependants not exceeding 5 per one member,<br>▪ Coverage: About 2.5 million or 5.6% of the population,<br>▪ Identification of members is though identity cards.<br>▪ Risk pooling and cross subsidization, with higher income persons paying more. | ▪ All public health facilities are automatically accredited to provide services to NHIF members,<br>▪ Special procedure for private members<br>▪ Payment to providers is through fee-for-service (FFS). whereby providers<br>▪ Submit their claims for payment to NHIF and the Fund pays the provider within a period of sixty days.<br>▪ The money paid to public hospitals is deposited into the Health Service Fund,<br>▪ Money that is reimbursed to primary facilities (dispensaries and health centres) enters into CHF | ▪ Registration fees, Basic diagnostic tests,<br>▪ Outpatient services including medications and investigations,<br>▪ In-patient care (fixed rate per day per level of health facility),<br>▪ Surgery, spectacles and other services | ▪ Assurance of access to health services<br>▪ Contribution to the HSSP III health financing<br>▪ Putting in place system of health provision outside the GoT general taxation system<br>▪ Attitude changes from free services to contributions<br>▪ Attitude changes from cash payments to use of Cards<br>▪ Attitude changes from laisser-faire to ownership by Members<br>▪ Brings services closer to members (Zones) | • Limited scope of coverage<br>• Low awareness by the public on how these different schemes operates<br>• Preference on cash payments vs. using card<br>• Non adherence by some health service providers on the standards set by MoHSW and the NHIF<br>• Low quality of health care services by providers and drugs shortages<br>• Rigidity of NHIF<br>• High surplus of NHIF |
| NSSF-SHIB | ▪ Compulsory formal sector employees and voluntary non-formal employees,<br>▪ Collected from payroll.<br>▪ 20% of monthly salary contribution to NSSF, part of which g24, 000oes to SHIB. | ▪ Pools resources from formal private employees and informal employees<br>▪ Low coverage, about 31,300 beneficiaries of 0.12% of the population.<br>▪ Identification through membership cards | ▪ Members register to one health facility and their dependants,<br>▪ Payment to provider is on capitation basis | Out-Patient Services (e.g.)<br>▪ Drugs under the National Essential Drug List<br>▪ Referral to hospitals<br>In-Patient Services (e.g.)<br>▪ Basic investigations<br>▪ Drugs under the National Essential Drug List<br>▪ Minor and Major Operations<br>▪ Referral to higher level & specialized hospitals | ▪ Relief to the employers<br>▪ Relief to the members<br>▪ Contribution to the HSSP III health financing | ▪ Low coverage<br>▪ Low satisfaction of services rendered to customers<br>▪ Shortage of drugs<br>▪ Inadequate health infrastructure, especially diagnostic and other equipments at the service provider level. |

| Source | Revenue collection | Pooling | Purchasing | Benefit package | Achievements | Constraints/challenges |
|---|---|---|---|---|---|---|
| CHF | ▪ Members pay fixed annual fee per household<br>▪ no co-payment when using services available at primary level health facilities<br>▪ Households unable to pay the fee are, in principle, entitled to an exemption.<br>▪ Households not joining the CHF pay user fees when attending health facilities.<br>▪ H/H contribution range Tshs 30,000 – 40,000 per year.<br>▪ Majority of the councils contribute a flat rate of between Tshs 5,000-15,000<br>▪ District Council established CHSB7<br>▪ CHSB works with CHMT8 to ensure success of CHF<br>▪ Ward Health Committee mobilizes community members to join CHF<br>▪ Members' contributions are matched by a 100 % grant from the basket fund.<br>▪ The CHF contributions are collected at facility level.<br>▪ NHIF currently oversees CHF operations | ▪ Covers rural (CHF) and urban (TIKA) low income households<br>▪ As of 2012, coverage was 3.8 million beneficiaries or 8.6% of the population,<br>▪ Over 90 % of the councils have been sensitized to start CHF.<br>▪ Risk pooling among families in the informal sector<br>▪ No cross subsidization between the rich and the poor<br>▪ No cross-subsidization between the district councils | ▪ Members register in one health facility of choice,<br>▪ All public facilities are accredited and some private facilities,<br>▪ Payment for services in public facilities based on district/council budgeting,<br>▪ Accredited non-public facilities claim refund from district/council for treating CHF members.<br>▪ User fees are waived/exempted for poor and vulnerable groups. | ▪ The scheme offers primary,<br>▪ some hospital care,<br>▪ Payment is on capitation basis | ▪ Contributors have a choice of providers.<br>▪ Provides opportunity for providers to increase service delivery<br>▪ Improves efficiency and equity<br>▪ Allows sharing of risk (community-rating)<br>▪ Allows collection of resources<br>▪ Facilitates community participation in CHF .<br>▪ Reduces out-of-pocket payment for members as compared to non-members | ▪ Low coverage<br>▪ Weak management of CHF<br>▪ Poor health care services in most rural health facilities<br>▪ Shortage of drugs<br>▪ Inadequate knowledge about health insurance,<br>▪ Weak provider claims settlement,<br>▪ Weak system of waivers and exemptions |
| PHI[9] | ▪ Members from public and private sector,<br>▪ Middle and high-end income private sector individuals<br>▪ Premiums are risk rated.<br>▪ Premiums range between Tshs 300,000 -950,000 per year,<br>▪ Enrollment is voluntary | ▪ Private insurance<br>▪ Coverage about 450,000 beneficiaries or 1.02% of the population<br>▪ Small separate pools for each insurance firm,<br>▪ limited cross-subsidization between the sick and the healthy members | ▪ Accreditation agreements between PHI and provider,<br>▪ Payments to providers is fee-for-services<br>▪ Payment is on capitation basis | ▪ Wide range, both outpatient and in-patient<br>▪ Referrals in and out-of-the country (such as India and South Africa),<br>▪ | ▪ Mobilization of additional resources for health financing,<br>▪ Timely payment of provider claims<br>▪ Provision of quality health care services | ▪ Low coverage<br>▪ Low accessibility to prepayment schemes for the<br>▪ poor<br>▪ Different benefit package provided by insurance<br>▪ schemes<br>▪ Different benefit package provided by insurance<br>▪ Schemes<br>▪ Cost escalation |

**Source: Kamuzora et all (2007); MoHSW HSSP III (2010); Bultman J. and A. Mushy (2013)**

7 CHSB – Council Health Services Board

8 CHMT – Council Health Management Committee

9 PHI – Private Health Insurance

## Annex 2: An overview of essential health care packages in the Region

| | Kenya | Uganda | Rwanda | Ethiopia | Malawi | Zambia | Tanzania[10] |
|---|---|---|---|---|---|---|---|
| Population (million) | 38.6 (2009) | 33.4 (2010) | 12.0 (2013) | 79.8 (2010) | 16.7(2013) | 13.8(2012) | 45 (2012) |
| **Packages interventions** | 1) Maternal mortality<br>2) Malaria<br>3) Cholera<br>4) Respiratory diseases<br>5) HIV and AIDS<br>6) Disparities in health<br>7) Diabetes<br>8) Mental illnesses<br>9) Road traffic illnesses<br>10) Active cigarette smokers (school children aged 13-15 years)<br>11) Tropical disease i.e. lymphatic filariasis | 1) Health Promotion, Disease Prevention and Community Health Initiatives<br>2) Maternal and Child Health<br>3) Prevention and Control of Communicable Diseases and<br>4) Prevention and Control of Non-Communicable Diseases (NCDs) | Universal coverage package covers preventive and curative services. | 1) Family health,<br>2) Communicable diseases,<br>3) Basic curative care and treatment of major chronic conditions,<br>4) Hygiene and environmental health,<br>5) Health education and communication. | 1) Vaccine Preventable Diseases<br>2) Acute Respiratory Tract Infections<br>3) Diarrhea, including Cholera<br>4) Adverse Maternal and Newborn outcomes, including Family Planning<br>5) Malaria<br>6) Tuberculosis<br>7) HIV/AIDS & STI<br>8) Schistosomiasis<br>9) Malnutrition, including Micronutrients<br>10) Eye, Ear and Skin infections<br>11) Common injuries, accidents and trauma | 1) Outpatient care,<br>2) Hospitalization inpatient care,<br>3) Maternal and child benefits,<br>4) Pharmaceuticals from a list of approved drugs<br>5) Basic surgical care | 1) Reproduction, Maternal, New-born and Child Health,<br>2) Prevention, Management and Control of Communicable Diseases<br>3) Prevention, Management and Control of Non-Communicable Diseases<br>4) Treatment and care of other common disease of local priority, and<br>5) Treatment of Neglected Tropical Diseases (NTDs) |
| Provision/providers | Public-private mix, Private-not-for profit | Public-private mix, Private-for-profit, Private-not-for-profit | Public and private-not-for profit | Public-private mix; private-for-profit; private-not-for-profit; services provided by accredited health facilities, both public and private | Public-private mix<br>-Private-not- for-profit<br>- Free at point of entry | Public-private mix<br>Private-not-for profit – receive govt subvention that covers 50% of their recurrent cost. Drugs subsidized. | Public-private mix, Private-for-profit, Private-not-for-profit |
| **Cost of the essential package** | US$24.6 per capita | US$41.2 per capita | US$24 per capita | US$16.9 per capita | US$735million over 6 years or US$17 per capita | US$ 12 per capita | US$ 397-635 million or US$ 35 per capita[11] |
| Financing | -Public/private<br>-Donor support<br>- Pooling and discrete funding modalities | -Households (49%)<br>-Donors ((35%)<br>-Government (15%)<br>-NGO'S (Less than 1%) | -Public,<br>-Donor support,<br>-Community insurance fund | Public/private/NGOs partnership for health; Community-based health insurance (CBHI);<br>-Donors support | Pooling and discrete funding modalities; Service level Agreements with CHAM Christian Health Association of Malawi (CHAM);<br>-Donor support | Public, Donors (35%)<br>'Franchised' a network of private sector-based health centers | -Public<br>-Public-private partnerships<br>-Donor support<br>-Community insurance fund<br>- Pooling and discrete funding modalities<br>- Dedicated health insurance |

[10] Main components of the National Essential Health Care Interventions Package – Tanzania (NEHCIP-Tz)

[11] Cost of the MBP is based on the National Health Services Costing Report (GIZ 2013), adjusted to account for changes in new costed ART, PMTCT and new labour norms.

| | Kenya | Uganda | Rwanda | Ethiopia | Malawi | Zambia | Tanzania[10] |
|---|---|---|---|---|---|---|---|
| | | | | | | | fund |
| Priority setting/Implementation | Kenya's essential package is organized in 6 levels: Level 1: community, Level 2: dispensaries and clinics, Level 3: health centers, maternities and nursing homes, Level 4: primary hospitals, Level 5: Secondary hospitals, and Level 6: Tertiary hospitals. The KEPH is largely handled in level 2 and 3; Community health insurance | Implementation at all levels of the health system. Free for the poor – subsidized by government. | Stratified premium contribution: Group1 (Indigents) –free-no co-payment. Covered by government. Group 2: RWF 3000 premium contribution: with co-payments: 10% at district and regional hospital and RWF200 at health centers. Group 3 (rich): RWF 7,000 premium contribution with co-payments: 10% at district and regional level and RWF 200 at health centers. | Regional Health Bureaus (in charge of policy); Woreda Health Offices – manages the essential health packages. Departmental Based Grouping (DBG) – a form of case-based payment mechanisms-was chosen as the payment mechanism to be used by the Health Insurance Agency to reimburse providers for inpatient services | -District health system<br>-Developed EHP Implementation Plans | Public health facilities – health posts, health centers, hospitals.<br>-District boards,<br>-District health directors | MBP to be accessible to all Tanzanians. Implementation at all levels of the health system pyramid health structure. Free for the poor – subsidized by government in all health provider facilities. |

## Annex 3: Basic Standards for Health Facilities

| Name of Level: 1 - 5 | Population Catchment range | Priority Disease/ Intervention Areas covered | Essential drug scope | Physical Facility (building and equipment) | Human Resource for Health |
|---|---|---|---|---|---|
| Dispensary | One Dispensary per 5- 10,000 inhabitants | Outpatient consultation including VCT/CTC and MNCH/RCH; Outreach services: EPI, MNCH/RCH and home-based care; Laboratory testing and counselling (HIV/AIDS); First level Maternity services: deliveries and neonatal care; Emergency/first aid/minor surgery (with observation beds); Obstetrics-gynaecology referrals; Medical referrals. No operating room or Inpatient services in this type of facility. | Adrenaline, Oxytocin, Insulin, Antimalaria, Anticonvulsants, Albendazole, Antipyretics, Antihypertensives,Analgesia, Broad spectrum Antibiotics | Outpatient block; Reception and records room (1), Consultation room (1), Laboratory (1), Observation rooms (2), Dispensing room (1), Injection room (1), Dressing room (1), RCH block; Registration and records room (1), Weighing and nutritional counseling (1), Immunization and refrigeration (1), Delivery room (1), Administration block; Office for in charge officer (1), Store (1), Toilets for staff (2), Supportive services; Toilets for patient (2), Outside pit latrine (1), Wash slab (1), Incinerator (1), Parking for cars, bicycles (overall) | Clinical officer/Clinical assistants (2), Nurses,(3) pharmaceutical assistant (1) ,laboratory assistant (1), medical Assistant (lab) (1) = Total 8 for more than 40 PATIENTS A DAY |
| Health centre | One Health center, per 50,000 inhabitants | Outpatient consultation to a maximum number of specialties delivered by paramedical, Assistant Medical Officers, doctors and specialists; | Adrenaline, Oxytocin, Insulin, Antimalaria, Anticonvulsants, Albendazole, Antipyretics, | H/C has a minimum of 13 rooms and maximum of 27 rooms Inpatient block; Male ward (2), Female ward | Assistant Medical officer (1), Clinical Officers (2), Assistant nursing officer (2), nurses (13), Assistant dental officer (1), dental therapist (1), Assistant Lab technologist (2), Assistant Pharmaceutical technologist (1)' Medical recorder (1), medical attendant (6) mortuary attendant (1) Dhobi (3) |

| Name of Level: 1 - 5 | Population Catchment range | Priority Disease/ Intervention Areas covered | Essential drug scope | Physical Facility (building and equipment) | Human Resource for Health |
|---|---|---|---|---|---|
| | | Ambulatory service consisting of day-surgeries and nursing;<br>Diagnostic services;<br>Admission in obstetrics-gynaecology, trauma, and internal medicine;<br>Management and transfer of information and health statistics received from the lower levels;<br>Primary care service in health education and health promotion; and<br>Health care services to older persons.<br>Minor surgery, although it has no operating room, so as to handle minor injuries and accidents. | Antihypertensives,Analgesia, Broad spectrum Antibiotics | (2), Delivery room (1), Nurse's Stations (4), Antenatal room (1), Post-surgery room (1), Maternity waiting home (1), Postnatal room (1), Neonate room (1), Obstetric Theatre room (1), Mortuary (1)<br>Outpatient block;<br>Reception and Records (2), Waiting area(1), Consultation/exam rooms (3), Observation Room (2), Laboratory reception area (1), Laboratory Store (1), Laboratory Sample Taking room (1), Drug dispensing room (1), Injection room (1), Dressing room (1), Minor Theatre (1), Theatre Waiting area (1), Sluice room (1), Scrub room (1)<br>RCH block;<br>Registration and records room (1), Weighing and nutritional counseling (1), Immunization and refrigeration (1), Delivery room (1),<br>Antenatal Clinic (1), Family | Total = 34 for more than 60/day |

| Name of Level: 1 - 5 | Population Catchment range | Priority Disease/ Intervention Areas covered | Essential drug scope | Physical Facility (building and equipment) | Human Resource for Health |
|---|---|---|---|---|---|
| | | | | Planning (1), Post surgery room (1), Post natal room (1), Neonatal room (1)<br>Administration block;<br>Office for in charge officer (1), Store (1), Toilets for staff (2),<br>Supportive services;<br>Kitchen (1), Laundry (1), Equipment store (1), Toilets for patient (2), Outside pit latrine (1), Wash slab (1), Incinerator (1), Parking for cars, bicycles (overall) | |
| Regional hospital | Catchment population of 200,000 to 500,000. | It provides outpatient and inpatient general services; specialized services: Obs & Gynecologist, Surgeon, Physician, paediatrician, radiologist and at least one specialist from the following areas: diagnostics, Accidents and orthopaedics, Ophthalmology, ENT, Psychiatry and Emergency medicine; Medical referrals | Adrenaline, Oxytocin, Insulin, Antimalaria, Anticonvulsants, Albendazole, Antipyretics, Antihypertensives,Analgesia, Broad spectrum Antibiotics | | Accounts Assistant (2),<br>Assistant Medical Officer (5),<br>Anaesthetist (5),<br>Assistant Nursing Officer (135),<br>Assistant Pharmacist Technician (14),<br>Assistant Accountant (2),<br>Assistant supply officer (2),<br>Assistant Dentist Officer (5),<br>Assistant Environmental Health Officer (4),<br>Assistant Laboratory technologist (14),<br>Assistant Physiotherapy (2),<br>Assistant Radiographer (3),<br>Assistant Technician (Civil) (2),<br>Assistant Technician (electrical) (2),<br>Biomedical Technician (2), |

| Name of Level: 1 - 5 | Population Catchment range | Priority Disease/ Intervention Areas covered | Essential drug scope | Physical Facility (building and equipment) | Human Resource for Health |
|---|---|---|---|---|---|
| | | | | | Cook (4),<br>Dental Surgeon (2),<br>Drivers (6),<br>Environmental Health Officer (1),<br>Health Secretary (2),<br>IT Technician (2),<br>Kitchen Attendant (2),<br>Laboratory scientist (10),<br>Laboratory technologist (10),<br>Medical Attendant (125),<br>Medical Recorder (15),<br>Medical Officer (20),<br>Mortuary Attendant (4),<br>Mortuary Pathologist (1),<br>Nursing Officer (45),<br>Nurse (170),<br>Nutritionist (1),<br>Occupational Therapist (1),<br>Optometrists (1),<br>Personal Secretary (2),<br>Pharmacist (4),<br>Pharmacist technician (5),<br>Physiotherapist (2),<br>Prosecutor (Mortuary) (1),<br>Mortuary Attendant (4),<br>Radiographer (5),<br>Radiologist (2),<br>Sonographer (Technician) (2),<br>Social welfare officer (10),<br>Specialist (20), |

| Name of Level: 1 - 5 | Population Catchment range | Priority Disease/ Intervention Areas covered | Essential drug scope | Physical Facility (building and equipment) | Human Resource for Health |
|---|---|---|---|---|---|
| | | | | | Supplies Assistant (2),<br>Supplies Officer (1),<br>Dhobi (4) |
| Zonal hospital<br>E.g.<br>KCMC, BUGANDO | A catchments area with a population of more than 15 million people. | It provides specialized care in major specialties and super specialties to both outpatients and in-patients. These super specialties include Cardiovascular system, Renal, Orthopaedics, Oncology and Neurology.<br>It provides complex curative interventions having 75% of specialist care and 25% of super specialized care | Adrenaline, Oxytocin, Insulin, Antimalaria, Anticonvulsants, Albendazole, Antipyretics, Antihypertensives,Analgesia, Broad spectrum Antibiotics | It has about 900 beds | Over 1000 employees. |
| National hospital | Caters as tertiary referral hospital to the whole nation | Provides super specialized care in all major specialties for both outpatients and inpatients of Medical, Surgical paediatric Obs/gynae, cardiac, renal etc. | Adrenaline, Oxytocin, Insulin, Antimalaria, Anticonvulsants, Albendazole, Antipyretics, Antihypertensives,Analgesia, Broad spectrum Antibiotics | The minimum number of inpatient beds is 1500.<br>25 departments, 7 outpatient's clinics which operates every day including RCH and CTC clinic, 50 wards which admits inpatients every day. Likewise the hospital has 18 operating theatre located in different blocks, and a mortuary with a capacity to store 80 bodies | Super specialty (80)<br>Specialist (152)<br>Medical officer (150)<br>Nursing officers (570)<br>Laboratory scientist (17),<br>Laboratory technologist (60),<br>Assistant Nursing Officer (1070)<br>Medical attendants (850)<br>2700 staff of different cadres serving on average of 1000 outpatients and inpatients are served per day. |

## Annex 4: Tanzania disease burden and number of people seeking health care

The main disease burden among under-fives is shown on Table A-1. In all three years malaria is the most severe disease burden accounting for over 33% of all diagnosed cases in 2011, down from 38.2% in 2009. Next are acute respiratory infections (ARI), pneumonia and diarrhoea.

### Table A-1: Top ten outpatient diagnosis among under-fives: HMIS 2009 – 2011

| Rank | 2009 | | 2010 | | 2011 | |
|---|---|---|---|---|---|---|
| | *Diagnosis* | *% of diagnoses* | *Diagnosis* | *% of diagnoses* | *Diagnosis* | *% of diagnoses* |
| **1** | Malaria | 38.2 | Malaria | 34.8 | Malaria | 33.0 |
| **2** | ARI | 17.4 | ARI | 17.4 | ARI | 18.5 |
| **3** | Pneumonia | 7.3 | Pneumonia | 9.0 | Pneumonia | 9.5 |
| **4** | Diarrhoea | 6.9 | Diarrhoea | 8.0 | Diarrhoea | 9.2 |
| **5** | Intestinal worms | 4.7 | Intestinal worms | 3.7 | Intestinal worms | 4.8 |
| **6** | Skin Diseases | 2.9 | Urinary tract Inf. | 3.4 | Urinary Tract Inf. | 3.2 |
| **7** | Eye diseases | 2.9 | Skin Infection | 3.0 | Skin Infections. | 3.0 |
| **8** | Urinary tract inf. | 2.4 | Eye Infection | 2.4 | Eye Infections | 2.6 |
| **9** | Anaemia | 1.6 | Anaemia | 1.6 | Ill-defined illness | 2.0 |
| **10** | Ill-defined illness | 1.6 | Ill Defined Symptoms | 1.3 | Anaemia | 1.7 |

Source: HMIS data for Mainland Tanzania, 2009, 2010, 2011

Table A-2 provides a summary of the ten outpatient diagnosis among persons aged five and above. In 2010 and 2011, the disease burden was nearly similar to those under-fives above. Malaria was the lead disease burden with over 28% of the diagnosis, followed by ARI, pneumonia and diarrhoea.

### Table A-2: Top ten outpatient diagnosis among persons aged five years and above: HMIS 2009 – 2011

| Rank | 2009 | | | 2010 | | | 2011 | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Diagnosis** | **Number** | **%** | **Diagnosis** | **Number** | **%** | **Diagnosis** | **Number** | **%** |
| **1** | ARI | 2,683,553 | 14.1 | Malaria | 6,890,882 | 28.9 | Malaria | 4,508,289 | 28.3 |
| **2** | Eye diseases | 1,005,564 | 5.3 | ARI | 2,652,082 | 11.1 | ARI | 2,361,007 | 14.8 |
| **3** | Venereal diseases | 939,987 | 4.9 | Diarrhoea | 1,036,202 | 4.3 | Pneumonia | 1,087,580 | 6.8 |
| **4** | Pneumonia | 925,496 | 4.9 | Pneumonia | 1,030,900 | 4.3 | Diarrhoea | 771,906 | 4.8 |
| **5** | Diarrhoea | 889,506 | 4.7 | Intestinal Worms | 861,611 | 3.6 | Intestinal Worms | 730,894 | 4.6 |
| **6** | Intestinal worms | 857,510 | 4.5 | Other Cardiac | 561,040 | 2.4 | Ill defined illness | 511,713 | 3.2 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Diseases | | | | | |
| **7** | Skin diseases | 641,887 | 3.4 | Ill-defined illness | 509,352 | 2.1 | Urinary Tract Infection | 492,833 | 3.1 |
| **8** | HIV/AIDS | 613,101 | 3.2 | Skin Infections | 5,076,649 | 21.3 | Minor surgical conditions | 440,760 | 2.8 |
| **9** | Minor Surgical conditions | 532,975 | 2.8 | Eye Infections | 388,139 | 1.6 | Skin Infections | 440,124 | 2.8 |
| **10** | Malaria | 6,113,889 | 32 | Pelvic Inflamm disease | 278,300 | 1.2 | Eye Infections | 328,138 | 2.1 |
| | | **19,008,694** | | | **23,872,055** | | **Total** | **15,947,547** | |

Source: HMIS data for mainland Tanzania, 2009, 2010, 2011

With regards to inpatient, the ten leading causes of admissions among under-fives is shown on Table A-3.

### Table A-3: Top ten leading causes of admissions among under-fives, HMIS 2009-2011

| Rank | 2009 | | | 2010 | | | 2011 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Disease | No. Of Cases | % | Disease | No. Of Cases | % | Disease | No. Of Cases | % |
| **1** | Malaria | 371,998 | 57.4 | Malaria | 356,503 | 48.9 | Malaria | 275,195 | 41.2 |
| **2** | Diarrhoea | 68,362 | 10.6 | Pneumonia | 102,448 | 14 | Pneumonia | 101,239 | 15.2 |
| **3** | ARI | 47,317 | 7.3 | Diarrhoeal Diseases | 50,903 | 7 | Diarrhoeal Diseases | 50,963 | 7.6 |
| **4** | Anaemia | 46,895 | 7.2 | Anaemia | 40,625 | 5.6 | ARI | 38,456 | 5.8 |
| **5** | Worms | 30,638 | 4.7 | ARI | 24,421 | 3.4 | Anaemia | 31,670 | 4.7 |
| **6** | Perinatal | 7,932 | 1.2 | Ear Infections & Eye diseases | 15,145 | 2.1 | Eye Infections | 14,339 | 2.2 |
| **7** | Schisto-somiasis | 6,790 | 1.1 | Urinary Tract Infections | 13,093 | 1.8 | Urinary Tract Infections | 12,291 | 1.8 |
| **8** | Malnutrition | 6,024 | 0.9 | Ill Defined Symptoms, no Diagnosis | 12,684 | 1.7 | Non-Infectious Kidney Diseases | 10,262 | 1.5 |
| **9** | Ill-defined disorders | 5,775 | 0.9 | Pre-natal Conditions | 6,315 | 0.9 | Ill Defined Symptoms, no Diagnosis | 8,085 | 1.2 |
| **10** | Skin diseases | 4,489 | 0.7 | Skin Infections | 5,532 | 0.8 | Schistosomiasis | 8,010 | 1.2 |
| | **Total Diagnoses** | **648,128** | | **Total diagnoses** | **730,059** | | **Total diagnoses** | **667,722** | |

Source: HMIS data for mainland Tanzania, 2009, 2010, 2011

Overall, the three leading causes of admission among under-fives are malaria, diarrhoea and respiratory infections, which collectively accounted for more than two-thirds of all causes of admission in the period between 2009 and 2011. Malaria was consistently the leading cause of admissions for children aged less than five years, accounting for 57.4%, 48.9% and 41.2% of all admissions in 2009, 2010 and 2011, respectively. Table A-4 shows the inpatient leading causes of admissions for persons above five years of age. Overall, the same budern of disease is observed, with malaria, pneumonia, diarrhoea and ARI topping the list.

**Table A-4: Top ten leading causes of admission for persons aged 5 years and above, HMIS 2009-2011**

| Rank | *2009* | | | *2010* | | | *2011* | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Disease** | **No. Of Cases** | **%** | **Disease** | **No. Of Cases** | **%** | **Disease** | **No. Of Cases** | **%** |
| **1** | Malaria | 253,748 | 33.0 | Malaria | 307,865 | 37.9 | Malaria | 252,813 | 32.8 |
| **2** | Pneumonia | 39,207 | 5.1 | Pneumonia | 60,317 | 7.4 | Diarrhoeal Diseases | 56,143 | 7.3 |
| **3** | Diarrhoea | 36,767 | 4.8 | Diarrhoeal Diseases | 53,192 | 6.6 | ARI | 48,673 | 6.3 |
| **4** | ARI | 36,136 | 4.7 | ARI | 31,600 | 3.9 | Pneumonia | 43,960 | 5.7 |
| **5** | Worms | 32,731 | 4.3 | UTI | 26,249 | 3.2 | Anaemia | 25,602 | 3.3 |
| **6** | Anaemia | 30,458 | 4.0 | Anaemia | 26,123 | 3.2 | UTI | 18,460 | 2.4 |
| **7** | Heart Disorders | 21,785 | 2.8 | HIV/AIDS | 24,498 | 3.0 | Ill Defined Symptoms, no Diagnosis | 18,370 | 2.4 |
| **8** | Rheumatic | 19,875 | 2.6 | Skin Infection | 16,263 | 2.0 | HIV/AIDS | 14,563 | 1.9 |
| **9** | UTI | 19,043 | 2.5 | Ill Defined symptoms | 14,021 | 1.7 | Hypertension | 12,857 | 1.7 |
| **10** | Fracture | 18,579 | 2.4 | GDS, GUD and other trans. diseases | 14,002 | 1.7 | Tuberculosis | 12,330 | 1.6 |
| | **Total Diagnoses** | **16,696** | | **Total Diagnoses** | **18,129** | | **Total Diagnoses** | **16,363** | |

Source: HMIS data for mainland Tanzania, 2009, 2010, 2011

The number of Tanzanians that are expected to seek treatment through outpatient and inpatient health facilities in both private and public hospitals is shown on Table A-5:

**Table A-5: Number of outpatient and inpatient seeking health care: 2009-2011**

| | Under 5 years | | Above 5 years | | Total |
|---|---|---|---|---|---|
| | Outpatient | Inpatient | Outpatient | Inpatient | |
| 2009 | 2,014,949 | 648,128 | 19,008,694 | 16,696 | 21,688,467 |
| 2010 | 4,794,881 | 730,059 | 23,872,055 | 18,129 | 29,415,124 |
| 2011 | 3,534,084 | 667,722 | 15,947,547 | 16,363 | 20,165,716 |
| Total | 10,343,914 | 2,045,909 | 58,828,296 | 51,188 | 71,269,307 |

| | | | | | |
|---|---|---|---|---|---|
| Average | 3,447,971 | 681,970 | 19,609,432 | 17,063 | 23,756,436 |

Source: HMIS data for mainland Tanzania, 2009, 2010, 2011

On average, about 23,756,436 people in Tanzania are likely to seek health care per year under all health conditions. Assuming a data recording error margin of 1-5 percentage points, then about 24-25 million Tanzanians are likely to seek health care per year. If we assume further that those under the MBP will range between a low of 45% and a high of 75% per year, then the number of people under the MBP in any year are likely to range between 11,250,000 to 18,000,000. This is the range that has been taken for the MBP costing.